Designing water supply and sanitation projects
to meet demand in rural and peri-urban communities

Book 2:
Additional notes for
Policy Makers and Planners

Designing water supply and sanitation projects to meet demand in rural and peri-urban communities

Book 2.

Additional notes for Policy Makers and Planners

Paul Deverill, Simon Bibby, Alison Wedgwood & Ian Smout

Water, Engineering and Development Centre
Loughborough University
2002

Water, Engineering and Development Centre
Loughborough University
Leicestershire
LE11 3TU UK

© WEDC, Loughborough University, 2002

Any part of this publication, including the illustrations (except items taken from other publications where the authors do not hold copyright) may be copied, reproduced or adapted to meet local needs, without permission from the author/s or publisher, provided the parts reproduced are distributed free, or at cost and not for commercial ends, and the source is fully acknowledged as given below. Please send copies of any materials in which text or illustrations have been used to WEDC Publications at the address given above.

A reference copy of this publication is also available online at:
http://www.lboro.ac.uk/wedc/projects/d4d.htm

Deverill P., Bibby S., Wedgwood A. & Smout I. (2002)
Designing water supply and sanitation projects to meet demand in rural and peri-urban communities
Book 2: Additional notes for Policy Makers and Planners
WEDC, Loughborough University, UK.

ISBN Paperback 1 84380 007 1

This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of low-income countries.
The views expressed are not necessarily those of DFID or the other organisations who contributed to the development of these guidelines.

Designed and produced at WEDC

Printed by John Price & Sons

Cover photographs:
Top left: Partners in Development cc (South Africa)
Top right: John Holmes/WaterAid (Nepal)
Bottom left: Sohrab Baghri/WEDC
Bottom right: Partners in Development cc (South Africa)

Acknowledgements

The financial support of the Department for International Development of the British Government is gratefully acknowledged. The authors would also like to thank the many organisations and individuals that have contributed to the development of these guidelines, without whose interest and participation this work could not have been undertaken.

South Africa

The Mvula Trust, Johannesburg, Pietersburg and Durban Regional Offices

Department of Water Affairs and Forestry, Pretoria

Partners in Development cc, Pietermaritzburg

Watsup Development, Johannesburg

India

UNICEF WES; New Delhi, Orissa and Madhya Pradesh

Rural Water Supply and Sanitation Department, Ganjam District, Orissa

United Artists Association, Ganjam District, Orissa

Mike Webster, Water and Sanitation Programme, New Delhi

Nepal

Nepal Water for Health (NEWAH)

Department of Water Supply and Sewerage, Kathmandu

Rural Water Supply and Sanitation Fund Development Board, Kathmandu

UNICEF WES, Kathmandu

Gurkha Welfare Scheme, Pokhara

Self Reliant Drinking Water Support Programme, Pokhara

Rural Water Supply and Sanitation Support Program, Butwal

Lumanti, Kathmandu

Greg Whiteside

Tanzania

Oxfam (GB); Dar es Salaam and Shinyanga

WaterAid; Dar es Salaam and Dodoma

Concern Worldwide, Dar es Salaam

WAMMA, Dodoma

Finally, the authors wish to acknowledge Kevin Sansom and Sue Coates for their inputs and suggestions, and the patience and skills of Glenda McMahon of the WEDC Publications Office.

Who should read this booklet?

This book has been written for policy makers and planners responsible for water supply and sanitation in rural and peri-urban areas. Potential readers include government staff at national, state and local levels, senior managers in non-governmental organisations and the private sector, and donor staff and advisers.

This book supplements Book 1 of these guidelines; *Concept, Principles and Practice*. Although Book 1 has been written primarily for practitioners, it introduces many of the issues discussed in this volume. Readers should ensure they are familiar with the contents of Book 1 before reading this volume.

Principles of meeting demand

1. An effective project communication strategy is devised which enables project staff to engage with communities, households and individuals.

2. Systems for individual and collective decision-making are established and used.

3. Appropriate indicators of demand are identified and used to assess demand.

4. Options are identified, developed and priced which:
   - Are based on user priorities and perceptions of value.
   - Are socially and culturally acceptable.
   - Reflect supply costs.
   - Reflect local and regional development policies and plans.
   - Are environmentally, technically and financially feasible.

5. People are enabled to make an informed choice of:
   - Whether they want to participate in a project.
   - Service level options.
   - How services are to be allocated, managed and maintained.
   - How contributions are to be made and managed.

6. Specific provision is made to ensure that all groups and individuals within a community can participate in the process, ensuring that vulnerable people such as women and the poor are included.

7. If necessary, demand should be stimulated by promoting the potential benefits of the options being offered, ensuring that these options reflect user perceptions.

8. Facilities are designed and management systems are established which are capable of responding to future changes in demand.

Additional notes for policy makers and planners: Summary

This booklet supplements Book 1 of these guidelines, *Concept, Principles and Practice*, which describes how practitioners can improve the demand responsiveness of their approach. In this volume, the implications for policy makers and planners are considered, focusing on what needs to be done to facilitate the transition from a supply-led to an effective demand responsive approach.

Book 2 begins by considering the potential strengths and weaknesses of using demand to drive project design. Four major issues emerge:

- Projects that have not managed to reflect people's demands tend to be less sustainable that those that do. This is true whether or not a specifically designed demand responsive approach has been used or not. The important question is not whether to design to meet demand, but *how* to do it.
- A demand responsive approach has intrinsic limitations not least the difficulties of assessing the demands of the poor. These limitations must be understood and compensated for if the approach is to be used effectively.
- To be successful, a demand responsive approach requires *capacity, resources and time* both to implement it and to support the services provided.
- The *quality* of participation and the quality of the information provided to users will largely define the success of a project and the sustainability of the services provided.

Reflecting these points, the key issue for policy makers and planners is to what extent they can afford to be demand responsive, bearing in mind the real constraints identified in Point 3 above and the political, social and economic pressure to achieve results in a relatively short timeframe.

Five key areas are identified for further discussion in the following sections:

- Policies, legislation and recommended procedures.
- Offering potential users an informed choice of service options.
- Demand assessment.
- The special needs of sanitation.
- Scaling up and process quality.

Each section identifies what policy makers and planners can do to facilitate the transition from a supply-led to a demand responsive approach to service provision. The final section concludes by examining how this could be achieved in a series of incremental steps, balancing the capacity and resources available with the expected impact of the services being provided.

Contents

Acknowledgments vi
Who should read this booklet vii
Summary ix
Contents xi
Abbreviations xii

1. Introduction 1
1.1 Strengths and weaknesses of using a demand responsive model 2
1.2 Key concerns for policy makers and planners 5

2. Policies, legislation and project rules 9
2.1 Policies 9
2.2 Legislation 12
2.3 Project rules 14

3. Offering people an informed choice 19
3.1 Problems encountered 20
3.2 Possible solutions 21

4. Assessing demand 23

5. The special case of sanitation 27
5.1 Why is sanitation marginalised? 27
5.2 Suggested actions for policy makers and planners 30

6. Scaling up and process quality 33
6.1 Monitoring process quality 34
6.2 Suggestions for scaling up 37
6.3 Assessing capacity for development 39

7. The way forward 43
7.1 The first step 45

References 49

Glossary 52

Abbreviations

CVM	Contingent valuation methodology
DFID	Department for International Development (UK)
DRA	Demand Responsive Approach (a generic approach developed and advocated by the World Bank and WSP)
DWAF	Department of Water Affairs and Forestry (South Africa)
NGO	Non Governmental Organisation
O&M	Operation and Maintenance
SANTAG	Sanitation Task Group (KwaZulu Natal)
UNICEF	United Nations Children's Fund
WEDC	Water, Engineering and Development Centre (UK)
WHO	World Health Organisation
WSP	World Bank Water and Sanitation Programme (Washington DC)

1. Introduction

The concept, principles and practice of designing water supply and sanitation projects to meet demand have been described in Book 1 of these guidelines. Book 1 was written specifically for individuals and organisations responsible for planning, designing, implementing and supporting water supply and sanitation projects in rural and peri-urban areas.

Book 1 consists of two parts. The first explains the concept of designing to meet demand. It thus serves as a useful introduction to these *Additional Notes*. The second part gives a practical description of how demand can be used, together with other factors, to guide a project towards a more sustainable result.

Book 1 contains inputs from over 20 collaborating organisations, and it is hoped that development staff in the field will find it useful. However, without a supporting framework of appropriate policies, legislation, resource allocation and capacity development, the impact of such practical guidelines will inevitably be limited. Accordingly, Book 2 has been written specifically for policymakers and planners.

Organisations at all levels, including many government departments, are now moving away from their traditional, supply-led approach to one that stresses the importance of user demand and local decision making. In doing so, they also have to take into account three additional (and occasionally competing) development trends:

1. Throughout the developing world, responsibilities for providing services and support are devolving from national to local levels. The aim is to improve efficiency, accountability and responsiveness.

2. Simultaneously, sectoral responsibilities are also changing. Government departments at all levels are moving away from implementation roles to becoming facilitators and regulators. Other organisations from both the private and non-governmental sectors are being encouraged to fill the gap. The aim is to make service provision more efficient.

3. Finally, there is increasing emphasis on alleviating poverty, and some donors such as the World Bank are allocating their funds accordingly. Yet demand responsive approaches are not automatically poverty sensitive and may require special measures to ensure that they include the poor.

Policies designed in light of these trends seek to improve the efficiency of service provision and to make the sector more cost effective and more accountable. For many policymakers and planners, the challenge is how to introduce and manage change with limited resources and limited capacity while remaining sensitive to pressing social, economic and political demands.

In practice, policies and legislation precede rather than accompany capacity building and the reallocation of resources. Demand responsive approaches are currently being introduced into this dynamic and complicated environment. Above all, there is a significant shortfall in the capacity needed to implement and support this relatively complex approach.

1.1 Strengths and weaknesses of using a demand responsive model

Why is it so important to become more demand responsive? It is imperative that policymakers and planners thoroughly understand both the potential benefits and the intrinsic weaknesses of using demand to guide project design. This is essential if they are to support the introduction and scaling up of effective, poverty-sensitive, demand responsive approaches.

The rationale for introducing and supporting demand responsive (or demand based) approaches is summarised in the left-hand column of Table 1.1.

The table also identifies some of the potential problems associated with the use of demand to shape the design of programmes. There are three dimensions to these concerns, associated with: (i) insufficient objective information about the application of demand, (ii) concerns that a demand responsive approach could further marginalise the poor, and (iii) concerns that there are insufficient capacity and resources to support a demand responsive approach.

Table 1.1. The strengths and weaknesses of using demand

Rationale for using demand responsive approaches	Potential problems
Despite significant gains, global coverage figures for water supply and sanitation (for example, WHO 2000) suggest that supply-led approaches to watsan have not been very effective. With 1 billion people lacking access to an improved water supply, and 2.4 billion lacking access to sanitation, it is argued that a change in approach is needed. Evaluations such as Cairncross (1992) and White (1997) have concluded that projects which fail to meet demand are characterised by poor sustainability and limited use of the facilities provided. Evidence, for example, provided by Gross et al (2001) suggests that users who are able to take key decisions about the services they want are often prepared to invest in their provision and upkeep. These contributions can be significant, reducing the pressures on governments to fund service provision - something that they cannot afford. In several studies (for example, Sara and Katz (1997) and Gross et al (2001), the level of demand responsiveness has been shown to be positively associated with sustainability. Demand responsive approaches are often associated with improved levels of cost recovery.	Responding to expressions of demand can easily exclude or marginalise vulnerable groups that may find it difficult to express their demand in the way or ways required. This applies in particular to women and the poor, especially when there is competition for water. Yet it is the poor that make up the majority of those lacking access to improved services. Approaches which emphasise the use of participatory techniques can place considerable demands on people's time. Some may be unable to participate in the decision making process for this reason. Demand responsive approaches to watsan tend to focus on improved water supplies (for which demand is usually strong), and may marginalise sanitation and hygiene. The sectoral nature of service provision may rule out some options for which demand is very strong, for example, water for horticulture. Supply-led approaches have proven to be effective in some cases, especially concerning sanitation where demand is initially weak. Stimulating demand when it is weak is necessarily supply led.

Table 1.1. continued

Rationale for using demand responsive approaches	Potential problems
Demand based approaches are compatible with rights based approaches that stress the importance of people taking informed decisions about issues that will have a major impact on their lives.	There is little information about the inputs required to implement a demand responsive approach. It is often suggested that high-profile pilot projects have received considerable resources and cannot be scaled up easily. The capacity to implement and support a demand responsive approach is limited. The quality of the approach could suffer, reducing its potential impact.

1.2 Key concerns for policy makers and planners

Further details of the potential and weaknesses of using a demand responsive methodology can be found in Section 2 of Book 1. Four conclusions can be drawn from that information and the information presented in Table 1.1.

1. Projects that have not reflected people's demands tend to be less sustainable that those that have. This is true whether a specifically designed demand responsive approach was used or not. The question is not whether to design to meet demand, but how to do it.

2. A demand responsive approach has intrinsic limitations, not the least of which are the difficulties of assessing the demands of the poor. These limitations must be understood and compensated for if the approach is to be used effectively.

3. To be successful, a demand responsive approach requires adequate capacity, resources and time both to implement it and to support the services provided during the initial period.

4. The quality of opportunities for participation and the quality of the information provided to users will largely determine the success of a project and the sustainability of the services provided.

The key issue for policymakers and planners is to what extent they can actually be demand responsive, bearing in mind the constraints outlined in Point 3 above and the political, social and economic pressure to achieve results in a relatively short time-frame.

A detailed discussion covering such a broad range of issues could easily take up several hundred pages. What follows is necessarily limited in scope, focusing on five key areas we consider to be the most important. The discussion is based on the research undertaken during the development of Book 1 of these guidelines. The six sections that make up the remainder of this book are introduced below:

Section 2: Policies, legislation and project rules. Policies, legislation and project rules (or procedures) largely define how services should be provided. They not only describe in broad terms the approach to be used, but also specify the roles and responsibilities of those involved. Section 2 looks at each of these components in turn, and suggests how they can be combined to provide an environment that supports demand responsive approaches.

Section 3: Offering users an informed choice. Potential users must be provided with an informed choice of service options. Book 1 describes how in practice user choice is often limited for a variety of reasons. Section 3 focuses on what policymakers and planners should do to facilitate the process, taking into account a number of important constraints.

Section 4: Demand assessment. Being able to measure or otherwise assess demand is a critical part of any demand responsive approach. Based on our research for Book 1, we would say that demand assessment is poorly understood. At worst, this leads to services being provided which are unlikely to be sustained and a waste of valuable resources. This section describes how policymakers and planners can support the appropriate use and application of demand assessment techniques.

Section 5: The special case of sanitation. Sanitation continues to receive far less priority than water supply. As identified in Table 1.1, the introduction of the "demand factor" could even make this situation worse, because demand for sanitation usually has to be stimulated before it can be addressed. This takes time and capacity. Section 5 looks at the special requirements of sanitation, and their implications for action.

Section 6: Scaling up and process quality. This section considers how a demand responsive approach can be scaled up in size to increase its impact, while maintaining the quality needed to improve the chances of a sustainable result. A methodology to assess and develop capacity that is being piloted in India as part of the Sector Reform process is described.

Section 7: The way forward. The final section summarises what policymakers and planners can do to facilitate the transition from a supply-led to a more demand responsive approach. This could be achieved in one or two stages over an extended period of time. We suggest a "default level" of demand responsiveness that is achievable with limited resources and capacity, yet that should still have a significant impact on the use and sustainability of services, as a first step.

2. Policies, legislation and project rules

A demand responsive approach cannot be implemented without a supporting framework of policies, legislation and project rules. It is useful to clarify the meaning of each of these terms - frequently this distinction becomes blurred, leading to confusion.

Policies set out how in overall terms an organisation or institution intends to achieve its objectives. Policies achieve this by providing a context, rationale and framework for various activities. In practice, policies are often expanded in guidelines which describe how they are to be interpreted.

Legislation includes laws made to define and if necessary enforce government policy and project rules. Drafting legislation is one responsibility of national government, although this function may be devolved in part to regional or local bodies. Laws are normally approved and enforced by different institutions, this separation being an important element of good governance.

Project rules are more specific than policies. Project rules set out the rights and responsibilities of those receiving services, and in many cases, those providing them. Project rules therefore define both incentives and conditions associated with service provision. There is a concern that the imposition of rules with little consultation and no scope for local adaptation can reduce the ability of an approach to meet local demands.

The remainder of this section looks at policies, legislation and project rules in more detail.

2.1 Policies

Defining the approach used to provide services is likely to be one component of a much wider policy framework. At national level, such a framework may also refer to the facilitating and regulating roles of government departments, water resource planning and conservation, community management, the involvement of NGOs and the private sector, and poverty alleviation as well as other aspects related to providing services and support.

Individual policies within such a framework must be coherent and mutually supporting. Demand responsiveness is not something that can be simply added to an existing policy framework. Its introduction normally requires a fundamental review. In practical terms, this is best initiated by stakeholder analysis, which looks closely at the roles and responsibilities of those involved.

In the course of developing these guidelines, a number of key factors were identified concerning policy. These are summarised below.

1. Policies should signal the approach to be used and explain its rationale. Important processes, including the provision of appropriate options, informed decision making and demand assessment, should be described in sufficient detail to ensure their inclusion.

2. The roles and responsibilities of the various stakeholders involved should be clearly defined, including the rights and obligations of potential users. In this respect, the ownership of the assets provided should be specified.

3. Policies should reflect the importance of sustaining and supporting existing facilities as well as providing new infrastructure. Institutional arrangements for providing technical and managerial support should be defined.

4. Policies must take into account the capacity and resources available to implement and support demand responsive approaches. Before plans to develop additional capacity can be made, existing capacity has to be assessed and compared to that required. Details regarding how this can be achieved are included in Section 6.

5. Policies should reflect the fundamental importance of sanitation and hygiene, and the processes involved in providing them. The risk of marginalising both sanitation and hygiene within a demand responsive framework should be addressed. Stakeholder roles for sanitation and hygiene are often overlapping or confused and should be clarified. For further details see Section 5.

6. Policies should reflect the importance of including vulnerable groups, especially women and the poor, in the process. Such groups could easily be marginalised by a poorly devised, poorly implemented or poorly supported demand responsive approach. Incentives may be needed to ensure that the

implementing organisations can establish and respond to the demands of the poor.

7. Policies should be sufficiently flexible to encourage locally appropriate solutions and to allow for devolved decision making. Policies that are too prescriptive can restrict user choice (for example, by ruling out a particular technology or a financial or management option). Often this has a disproportionate effect on the poor.

8. Policies should emphasise the need for accountability and transparency. First, this reinforces the principle that people have rights as well as responsibilities. Second, the experience of implementing and supporting a demand responsive approach can be used to improve performance and to refine policies.

9. Finally, policies need to be translated into practice. This can be facilitated by providing supporting guidelines and promoting their use. Guidelines (and associated capacity building) should not, however, be overly prescriptive (in effect, an imposed substitute for local decision making), and must be simple enough to use.

This last point merits more attention. The development staff who must implement them often criticise guidelines for being too cumbersome and too bureaucratic. This can have three negative effects:

- The additional administrative workload reduces opportunities for managers and engineers to visit the field.
- Excessive bureaucracy can delay the disbursement of funds. This can significantly undermine the perceived credibility of project staff and any local committee. Demand may be eroded as a result.
- Overly prescriptive guidelines reduce opportunities for innovation, which can be particularly important both locally and strategically.

Ultimately a balance is needed to ensure that underlying principles are transferred and that implementers and support staff have sufficient guidance to make informed, locally appropriate decisions. Guidelines may have little or no impact unless supported by an effective dissemination strategy and training on their use. The application of guidelines should also be monitored.

For policymakers and planners facilitating the transition to a demand responsive approach, a first step may be to review existing policies. While the points raised above could be adapted to form a checklist, it is also good practice to establish the situation on the ground. Stakeholder consultation, using a number of participatory techniques, can be used to assess the impact of current policies from the user's perspective. Van Wijk (2001) provides an example demonstrating this approach, together with a full description of the methodology used.

2.2 Legislation

Legislation may be required to underpin key policies and project rules associated with a demand responsive approach. It serves to protect the rights of stakeholders and to reinforce certain obligations with the full authority of the State. For example, the rights and responsibilities associated with ownership can be greatly reinforced if defined by law.

Other than defining rights and responsibilities, legislation can be used to underpin management and financial options that could otherwise lack authority. For example, a local management organisation can be authorised by legislation to award contracts, to set and periodically adjust tariffs and to collect payments for the services provided. The same mandate can also set limits to these powers, and may require, for example, an annual audit of accounts.

Legislation is potentially a powerful tool, but it needs to be carefully designed. A number of points should be borne in mind.

- Existing legislation may inhibit the implementation of a demand responsive approach and may need to be amended. For example, legislation might prevent community-based organisations or private companies from managing water and sanitation services, excluding potentially important options and reducing user choice.

- Legal sanctions should be credible, fair and proportionate. For example, blocking access to a safe water supply because a household fails to pay for it is unlikely to be appropriate if there is no acceptable alternative.

- The bodies responsible for setting and enforcing legislation should be independent from those responsible for supplying water and sanitation services.

- Stakeholders must be aware of their legal rights and responsibilities. Policymakers and planners may need to consider how to communicate this to all potential users, including marginalised groups who are often difficult to reach.

- Legislation should reflect the capacity of stakeholders to meet their designated responsibilities. For example, there is little point in requiring an annual audit of accounts if the treasurer concerned has not received adequate training to prepare for this.

- For legislation to have meaning, stakeholders should have access to legal redress. Among users, poor people and women may be particularly unwilling or unable to take legal action if they feel that their rights have been infringed. A third party may be needed to offer support, including, if necessary, underwriting the costs of legal action.

Legislation set by a national government can support local authorities by providing a legal framework that formalises their roles and responsibilities. An example is the South African Water Services Act of 1997 (see Box 2.1). Such a framework can then be strengthened with appropriate local legislation, designed to support local policies and project rules.

Local legislation, including by-laws, tends to be relatively simple to apply without excessive costs or bureaucracy. Disputes can be resolved quickly and transparently. However, local authorities with little experience of setting by-laws are likely to need guidance on how to formulate and apply this type of legislation.

Box 2.1. Water Services Act (Act 108 of 1997) of South Africa

South Africa's Water Services Act aims to assist rural municipalities and regional local government in their function of water service provision to ensure effective, efficient and equitable access to water services.

The Act defines roles and responsibilities of the key institutions and organisations involved in water supply and sanitation. It also allows for a number of institutional options for water service providers. Under the act, the water service provider could be a community based organisation, a Water Board, an NGO, a private company or even an adjoining local authority. In addition, the act:

- Requires the setting of national norms and standards for water services. These define a basic level of service.
- Allows water service providers appointed by local governments to set tariffs.
- Defines the regulatory and facilitation functions of rural municipalities, regional governments and the national government.

One issue still to be resolved is how the existing national standards for water supply, which define a minimum level of service, can coexist with municipal and local government requirements for ensuring adequate cost recovery and for identifying cost effective alternatives.

DWAF (1997)

2.3 Project rules

Project rules inform stakeholders of their fundamental rights and responsibilities. These establish basic principles and detail certain obligations (for example, arrangements for cost-sharing). Four general points need emphasis.

- It is important to balance the principles which underpin project rules on one hand and the need for a responsive approach which is sensitive to local circumstances on the other. Rigidly applied procedures or rules can stifle demand and innovation.

- Project rules should define rights as well as responsibilities and obligations. As such they provide key incentives for participation.

- Project rules apply both to potential users and to those responsible for implementing and supporting projects.

- Project rules are more likely to be successful if they are perceived to be fair and appropriate. It is good practice to consult all major stakeholders or their representatives when formulating them.

More specifically, the following issues were raised during the preparation of these guidelines.

- Some rules seem to reflect what policymakers and planners would like to see happen, but may not be sufficiently flexible to take into account the local context. As a result, rules may reduce potential options and opportunities for local decision making and innovation.

- Potential users and project staff may perceive rules as a series of imposed conditions with little or no apparent value. This may lead to resentment.

- Rules are of little consequence if they are not discussed before a community signs up to a project. Special efforts are needed to ensure that marginalised communities and groups within communities are able to do this. In some cases, people may get an incomplete or distorted view of what is, or is not, expected (see Box 2.2).

- Rules can be misinterpreted or ignored. For example, an engineer may preselect an option on its technical merit, with little or no consultation with potential users. The application and impact of project rules should be monitored.

Sara and Katz (1997) identified the rules that should apply to DRA - the generic demand responsive model for water supply advocated by the World Bank. These are shown in Box 2.3.

Box 2.2. Misinterpretation of project rules

The Sector Reform process now being piloted in India requires that users contribute 10% of the capital costs of an improved water supply in either cash or kind. During a visit to a village in Madhya Pradesh, some villagers announced that they were already saving - not only for a new water supply, but for a new road. They had heard of the contribution system, but not that it only applied to water supply.

Deverill and Wedgwood (2001)

By setting out fundamental rights and responsibilities, project rules become a necessary part of a demand responsive approach. However, in practice, several additional factors can increase their efficacy.

- Rules should be developed "from the bottom up" and agreed upon at the lowest appropriate level, according to guiding principles set by policymakers and planners.

- Rules should be made as simple as possible and encourage local decision making wherever appropriate. The number of rules with attached conditions should be minimised.

- Rules should give equal weight to rights and responsibilities.

- Rules should be accompanied by an appropriate communication strategy. Specific measures should ensure that marginalised stakeholders understand both the rules and their implications.

- Rules should be underpinned by credible and appropriate sanctions. This may require specific local legislation.

- The application of rules should be linked to a number of indicators and these should be monitored. Rules can then be adapted and refined according to experience.

- Policymakers and planners should support the development of project rules with guidelines and resources for capacity development and monitoring.

Box 2.3. Suggested rules for DRA

Eligibility criteria. Rules for participation must be broad enough so that eligibility does not by itself guarantee that every eligible community will receive a service (in other words, demand should exceed supply).

Informed request from community. Communities should be able to make informed choices about whether to participate in a project. They must know in advance the terms of their participation and the responsibilities implied.

Technical options and service levels. Communities should be actively involved in selecting service levels. A range of technical options and service levels should be offered with the related cost and operational implications made clear.

Cost sharing. The basic principles of cost sharing should be specified and made clear to all stakeholders at the outset. Arrangements should be designed so that communities choose the levels of service for which they are willing and able to pay.

Responsibilities for investment support. Rules regarding asset ownership, O&M and ongoing recovery of system costs should be established and agreed upon by all stakeholders.

These rules would need to be adapted to suit a local context. Separate sets of rules for those receiving, implementing and supporting services may be useful, clarifying particular rights and responsibilities.

Source: Sara and Katz (1997)

3. Offering people an informed choice

People can only make decisions about the type of service they are to receive if they have a choice of options. User decision making must also be informed by knowledge of the characteristics of each option, including exactly what inputs are required to use, maintain, upgrade and extend the service in question.

Choice is usually limited by financial and technical constraints, environmental considerations, the needs of other people, the capacity available to implement and sustain an option, and the policies and plans under which the project is being implemented. In some cases, there may be few technical options available. However, even with these, people may still be able to decide, for example, the number and location of water points or the details of the design, how and when contributions are to be made, and how the service is to be managed.

In reality, choices are limited by a number of external factors, including the resources and capacity available. A negotiated solution is often needed to balance individual and collective demands with what can be done. For example, negotiation may be needed to agree on the total number of communal taps in a gravity water scheme with a limited spring yield and limited funds.

Negotiation skills may also be needed whenever there are competing demands within a community. Otherwise the stronger voices in a community tend to dominate. Continuing with the last example, it is easy to imagine that the location of water taps may need to be negotiated. Here the negotiator's role would be to facilitate dialogue and to achieve an equitable solution.

An effective set of project rules, applying both to project staff and to potential users, helps the negotiation process by establishing what can and what cannot be done. This reinforces the importance of all stakeholders understanding and buying into these rules before the project gets underway.

3.1 Problems encountered

In practice, offering people an informed choice of options is not simple. The organisations involved in developing these guidelines described several problems they had encountered.

- Project staff lack the time, resources, opportunities and skills to consult with users, develop options and negotiate solutions to the extent required by a demand responsive approach. As a result, women, the poor and those living in remote areas are less likely to be consulted.

- In many cases, project staff are driven by the need to achieve quantitative targets that focus on providing infrastructure, irrespective of how this is achieved. This reflects the difficulty of applying a demand responsive approach in what is essentially a supply driven environment.

- Policies often force project staff to offer water for domestic use only, limiting its potential for productive use. Similarly, sanitation interventions may be restricted to providing domestic toilets.

- Many project staff have limited knowledge of low-cost technologies and how to upgrade them. As a result, people may be making poorly informed choices.

- Many engineers lack the experience, confidence or incentives to adapt standard designs to suit local conditions.

- Engineers may be unable (for example, due to legislation) or unwilling to relax inappropriate standards - for example, those related to water quality. People can be excluded from receiving improved services because a standard is not achievable. The health risks associated with different courses of action need to be compared to determine the best solutions.

- Many project staff seem unable to cost options accurately and to use this information to set or suggest prices, due to lack of data or lack of knowledge about how to do this.

- Project staff, and therefore users, are often poorly informed about the implications of providing higher or mixed service levels. This applies in particular to the degree and types of input required to sustain them.

- Generally, insufficient emphasis is placed on informing communities receiving a service (and organisations responsible for providing support) regarding how to use, manage, maintain, extend, upgrade and replace the facilities provided.

3.2 Possible solutions

Many of these points have already been identified and discussed in Book 1 of these guidelines. However, policymakers and planners need to recognise that these or related problems can severely constrain the effective implementation of a demand responsive approach. The following 11 measures are suggested as ways to improve this situation:

1. Ongoing or completed projects, especially those offering higher or mixed levels of service, provide opportunities for learning, which should be maximised. Policymakers and planners should actively encourage and support exchange programmes and the documentation and dissemination of case study material.

2. Post-evaluation studies focusing on both project impact and sustainability deserve far more emphasis. This applies to both supply-led and more demand responsive projects, and can be instrumental in advocating change. One example is the Looking Back study undertaken by WaterAid (2001)

3. Data on the performance, impact, supporting requirements and real costs of key options (technical, financial and managerial) should be collected, analysed and disseminated. Much of this information could be captured on a central database. Government can take the lead in this area, using the information gathered to revise policies and standards and also ensuring that implementing organisations can access information in the format they require.

4. Policies and project rules need to reflect the additional time and related costs of providing people - especially women and the poor - with an informed choice of options. The inputs required depend on the quality of the process and local conditions. A number of pilot projects could be set up and evaluated to establish local norms and guidelines.

5. Policy objectives should reflect the importance of the sustainability and impact of the services provided as well as coverage, as should the various indicators used to monitor progress. Responsibilities for monitoring should be clearly defined, ensuring that the organisations responsible have adequate capacity to undertake this role.

6. Giving users an informed choice is so fundamental to a successful project outcome that it may merit specific monitoring and evaluation, using appropriate indicators. These should reflect the extent and the quality of informed decision making, focusing in particular on vulnerable groups and households.

7. Existing laws and policies may have to be modified, and technical staff may need encouragement and guidance in adapting inappropriate standards and modifying standard designs.

8. Policies, legislation and project rules may also need to be revised to give project staff the flexibility needed to offer service improvements above and beyond domestic water supply and sanitation. Higher service levels should be associated with higher tariffs and only offered if sufficient water resources are available.

9. Alternative methods of finance should, for example, provide funds that allow users to pay by instalments. This concept could be extended by providing start-up capital for a range of economic activities.

10. Project staff need guidance in helping them to cost options. This issue is considered in Book 1 of these guidelines, but it must be addressed in detail according to the demands of each local context. This task could be planned and organised by a government department responsible for facilitating the provision of services.

11. The professional education of water supply and sanitation engineers and technicians should be reviewed. Professional training should emphasise the principles and practice of encouraging users to make key decisions about the services and service levels and how technical staff can best support the processes involved.

These points could be developed into a checklist, and used as a tool to assess the current and future responsibilities of institutions involved in providing service. Policies, legislation and project rules could also be reviewed in the same way, identifying key areas for improvement.

4. Assessing demand

In order to reflect demand for the service options provided, project staff need to be able to measure (or otherwise assess) it. How effectively this is achieved will have a major impact on the success or failure of a project. However, demand is the product of a large number of factors. It varies among communities and within communities, among households and within households. It also varies over time, as people's circumstances, perceptions and expectations change.

In addition to this complexity, project staff face a number of practical problems.

- Demand does not exist in isolation but is associated with a particular service. Identifying the options that match people's preferences is an iterative design process involving both users and technical staff. In practice, it can be difficult to find the time and opportunities to engage people in this way.

- Some people are less able to express their demand than others. Women and the poor are at risk of being excluded from decision making because often they are unable or unwilling to express their demands in the ways required. Alternatively, they are ignored because of their perceived status or physical location.

- Demand for some improvements, in particular for sanitation, is often latent or hidden. As such, it cannot be assessed in the same way (and at the same time) as demand for an improved water supply, which is generally quite salient. For further details see Section 5.

These problems primarily affect practitioners and are addressed in Book 1 of these guidelines. The recommendations are summarised in the following box. Policymakers and planners should be aware of the implications of these situations.

Demand assessment techniques

In Book 1 it is recommended that several techniques be employed to assess demand, undertaking this at different stages of the project process. Appropriate indicators should be used, taking particular care to ensure that vulnerable groups are included. As such, demand assessment can be seen as an integral part of the project process rather than a series of separate activities.

A number of important lessons can be drawn for policymakers and planners. First and most important, project staff need the opportunities, time, resources and capacity to build a picture of demand and to work out how best to respond to it.

The approach used must be context specific and must depend on the capacity and resources available and the local situation. For example, in a small village or hamlet, a detailed assessment of coping strategies could provide sufficient information to design simple options. In more complex situations, the use of several demand assessment techniques (at different stages of the project) may be needed to understand demand.

Project staff are likely to need guidance regarding which demand assessment technique to use. Book 1 of these guidelines provides some information about how to make such choices, but there is no simple formula that can apply to all situations. Those guidelines may have to be modified (or even translated) to suit local requirements.

Many policymakers and planners may be familiar with the term *contingent valuation methodology* (CVM) and its use to assess demand. CVM is, however, a relatively expensive exercise requiring expertise that is unlikely to be widely available or affordable.

Despite its high profile, CVM is of limited use in rural and lower density peri-urban areas. The results obtained are locally specific and cannot be transferred from one place to another with much confidence. Other techniques, such as

revealed preference studies and the participatory development of options (described in Section 10 of Book 1), are more likely to be successful.

In spite of these reservations, contingent valuation may still be useful in high density formal and informal peri-urban areas where expectations and service levels are better understood. If the technique is to be used, the options provided must be feasible and costed accurately, enumerators must be carefully selected and well trained, and survey techniques and questionnaires must be pre-tested. Finally, the service provider should be willing and able to use the results obtained. Sometimes willingness to pay exceeds the service provider's willingness to charge[1].

Whichever techniques are used, policymakers and planners can support demand assessment by stressing its fundamental importance and providing guidance on its application. As already recommended in Section 3.2, information on generic options can be collected and disseminated to implementing organisations. A number of pilot projects could also be evaluated to determine the type and level of inputs required to provide and sustain a range of service options.

Finally, as suggested in Book 1, it is also possible to provide additional incentives by assessing the extent to which project proposals and action plans have been informed by demand. A number of process indicators can be used in this context. Capacity may need to be developed to ensure these can be independently verified in the field.

[1] For more details of contingent valuation see Wedgwood and Sansom, 2002.

5. The special case of sanitation

5.1 Why is sanitation marginalised?

Despite the efforts of many governments and international organisations, two fifths of the world's population lacks access to adequate sanitation (WHO, 2000). The majority of these people live in Asia and Africa, where concerted efforts are now essential to reduce the burden of related disease.

To be effective, these efforts must be directed at changing people's behaviour as well as providing sanitary facilities. Key behaviours (such as hand washing with soap after defecation), and the use and care of sanitary facilities require access to water. Therefore, water supply, sanitation and hygiene initiatives are often integrated. Certainly, in the context of a demand responsive approach, water supply and sanitation initiatives share a number of activities:

- Establishing people's priorities and perceptions.
- Using this information to identify and develop feasible options.
- Communicating details of options and prices to potential users.
- Establishing mechanisms to sustain and upgrade these choices in the longer term.

Unlike demand for water supply, however, demand for sanitation often has to be stimulated before responses to it can be implemented. This process starts with project staff understanding local attitudes to hygiene and sanitation. Positive perceptions can then be emphasised, both in the options offered and the messages used to promote them. This process is known as social marketing, and is described in more detail in Section 2.8 of WELL (1998).

Although stressing benefits such as privacy, convenience and security can be an effective strategy for marketing sanitation, the link between health and sanitation should not be neglected. Special steps may be needed to ensure that the importance of appropriate hygiene practices is understood.

Even after taking such measures, demand for sanitation may only increase once households have observed the benefits of a neighbour's or relation's using an improved facility. Stimulating demand is a dynamic process rather than a time-bound activity, as illustrated in Box 5.1.

Box 5.1. Achieving sustainable sanitation in S.E. Asia

A recent study conducted by the Water and Sanitation Programme (WSP) in three countries in South East Asia highlighted some important lessons about stimulating demand for sanitation.

The common factor that proved most instrumental in influencing demand for household sanitation was the popular awareness of defecation in latrines as a "higher way of living or better way of life" compared to open defecation. The perception could have arisen due to promotional activities, or through increased exposure to the benefits of using latrines.

Demand tends to follow a distinctive pattern. Most households wait until a trusted and known person obtains an improved sanitation facility. If the new idea is endorsed, a number of limiting factors then have to be overcome (for example, the availability of land and other resources). When or if this happens, demand is relatively free to grow, as long as there is a sustainable supply mechanism.

To achieve a health impact, demand generation needs to be accompanied by sustained improvements in sanitation behaviour. People have to make a conscious decision to adopt a new practice consistently.

A sanitation project therefore needs time as well as resources to achieve a sustainable impact. The WSP report suggests that whereas a water supply project could be planned as a four to five year intervention, sanitation projects may require twice as long, to achieve a sustainable change in people's behaviour.

Source: Mukherjee (2001)

Supply mechanisms are needed to respond to demand for improved sanitation and to encourage improved hygiene behaviour. These must be flexible - able to cope with changes in demand and changes in perceptions of hygiene. Suppliers must also cope with the logistics of delivering services, a major challenge in some areas. After a number of years, local demand may be saturated and suppliers will have to move elsewhere or diversify to survive.

This summary helps explain why "package" approaches in which sanitation, water supply and hygiene initiatives are combined to form a single project are difficult to implement. In practice, sanitation and hygiene tend to be marginalised for a variety of reasons.

1. Lack of Capacity

Organisations responsible for implementing or supporting sanitation projects often lack the capacity to:

- Promote changes in hygiene behaviour.
- Stimulate demand for sanitation.
- Identify and develop low-cost sanitation options.
- Establish appropriate supply mechanisms.
- Monitor progress and support the process.

Furthermore, institutional responsibilities for sanitation are often poorly defined, which exacerbates the problem.

Responding to demand for an improved water supply generally requires more rather than less social input. This can result in sanitation and hygiene being further disadvantaged in an integrated "package"[2] project.

2. Low political profile

Investment in water supply is more visible and at all levels has a higher political profile than investments in hygiene and sanitation.

---

[2] In this context, 'package' implies that water supply, sanitation and hygiene improvements are undertaken as distinct activities within a single project. Recent research has shown that sanitation and hygiene are often marginalised in this situation. For details see Leblanc (2002).

The use of social marketing to promote sanitation facilities based on people's preferences could result in more importance being attached to constructing new facilities and less importance being attached to achieving sustainable changes in hygiene behaviour. Therefore, policymakers need to ensure that hygiene promotion is emphasised in water supply and sanitation programmes.

Community-based water and sanitation committees are often selected to build and manage a water supply. Once construction is over, many committees have insufficient interest or incentive to manage a household sanitation project. A different approach may be needed, for example, one based on separate water supply and sanitation committees.

The low profile of sanitation and hygiene is reflected at all levels, as indicated by the relatively low budgets typically allocated to those areas. For example, the total annual investment in water supply in Asia from 1990 to 2000 was over five times the amount spent on sanitation over the same period, although 80% of the world's population without access to adequate sanitation live in Asia (WHO, 2000).

3. Extended time-frame

It can take many years before a community's demand for sanitation is satisfied. Most water supply projects are completed long before this stage is reached. Further progress may be blocked, for example, because there is no longer a mechanism to provide technical support or to manage a subsidy. Policymakers and planners need to address this problem.

4. Insufficient financial incentives

Even applying a demand responsive approach, most water supply projects are relatively capital intensive, highly subsidised and quick to implement. Compared to sanitation projects, the required inputs, including human resources, are also more likely to be available. Finally, more funds may be available for water supply than for sanitation.

5.2 Suggested actions for policy makers and planners

Policymakers and planners can do several things to help address these problems:

ADDITIONAL NOTES FOR POLICY MAKERS AND PLANNERS

1. Clarify institutional roles and responsibilities for implementing and supporting improved sanitation at all levels. Investments may be needed to ensure that capacity exists where it is required.

2. Establish sanitation goals, achievable targets and a system to monitor progress. Indicators should include the use of facilities and the adoption of safer practices and behaviours.

3. Improve inter-sectoral collaboration and learning at all levels by establishing mechanisms to do this. One successful example of this at the provincial level is the Sanitation Task Group (SANTAG) operating in KwaZulu Natal, South Africa (see Box 5.2 for details).

4. Encourage the emergence of sanitation "champions" at different levels, ensuring they are given a high profile and opportunities to disseminate their knowledge.

5. Consider the benefits of integrating water, sanitation and hygiene by co-ordinating separate initiatives rather than packaging them in a single project. This has implications for funding (see Point 8 below).

6. Design sanitation-specific policies and project rules that include:
   - Key incentives for implementing organisations.
   - Provision for inputs to be made over a significantly longer time frame.
   - Process and performance indicators.
   - Monitoring and supporting arrangements.
   - General criteria for selecting communities.

7. Provide implementing organisations with guidance on the social marketing of sanitation, hygiene promotion and associated methods of communication. This could be based on a number of pilot projects, which could also be used to establish the cost of providing sanitation.

8. Separate budgets for water supply, sanitation and hygiene promotion to ensure that sanitation and hygiene receive sufficient priority.

Box 5.2. SANTAG: KwaZulu Natal's Sanitation Task Group

SANTAG, KwaZulu Natal's Sanitation Task Group, was established in 1996 to implement South Africa's National Sanitation Policy throughout KwaZulu Natal. Its members meet to ensure co-ordination of sanitation initiatives and to ensure their effective implementation.

SANTAG is made up of representatives from four government departments (Health, Water, Education, Works); the Mvula Trust; key implementing organisations from the private and NGO sectors; District Councils and several organisations involved in research and communication. The National Sanitation Co-ordination Office is also represented.

SANTAG concentrates its activities in five areas:

Co-ordination and Networking. Bringing together key stakeholders at Provincial and increasingly at District level to co-ordinate projects and other initiatives.

Awareness. Distilling lessons learned and best practices throughout KwaZulu Natal and beyond, disseminating material in a variety of formats including a monthly newsletter.

Advocacy. Focusing on the importance of monitoring and evaluation and that key stakeholders are actively involved to improve project performance.

Training. Developing modular courses in sanitation (used as qualifications for further courses in public health) and promoting capacity building through other training initiatives within the Province.

Technical Support. Promoting builder training and quality construction, the use of affordable technology and school sanitation.

For further information see http://www.santag.org.za

6. Scaling up and process quality

The term "scaling up" has a number of different meanings, depending on the context in which it is used. In these guidelines, scaling up refers to the expansion of a demand responsive *approach* over a larger geographical area or to different geographical situations. Implementers should be encouraged to adapt the approach to suit local circumstances, rather than to replicate it blindly.

To date, few demand responsive projects have been scaled up in this way. More emphasis has been placed on investing considerable resources and capacity in individual projects, creating what are often described as "islands of excellence". Such projects may have an important role to play in terms of advocacy, but they need to be designed from the outset so that the approach they use can be scaled up. There are several implications to this:

- Arrangements for providing longer-term support to services need to be agreed upon at the outset. This has implications for policies, legislation and institutional arrangements.

- The resources and capacity needed to plan and implement projects and sustain the services provided in the longer term must be available, or at least potentially available, throughout the area designated for future expansion.

- Before scaling up a pilot approach, it must be known to be effective. This requires a culture of openness and transparency amongst the stakeholders involved, - a culture that promotes rather than obstructs learning and accepts that mistakes will occasionally be made.

The second of these points implies that policy makers and planners have to balance process quality with the limited resources and capacity available. Projects may be more or less demand responsive, depending on the extent to which users are able to participate in informed decision making.

In practice, with only limited resources available, the quality of decision making may have to be reduced to increase coverage and maximise the overall impact of the service being provided. The question is to what extent this is

possible without sacrificing sustainability. This can only be answered if quality is monitored.

6.1 Monitoring process quality

The principles of meeting demand set out at the beginning of this booklet suggest that in this context, process quality is made up of:

- The quality of the project's communication strategy.
- The quality of informed decision making.
- The quality of demand assessment.
- The technical quality of the options presented to people.
- The participation of vulnerable groups.
- The quality of systems provided to respond to future demand.

The parameters listed above can be used to establish a small number of critical process indicators. Reflecting the importance attached to consulting users, these could then be monitored through a variety of participatory techniques.

For example, the indicators identified in Table 6.1 can be used to assess the degree to which people have been able to participate in informed decision making. The information presented in the Table reflects the importance of consulting with women as well as with men, and with different social groups within the community involved.

Table 6.1. Indicators that could be used to assess the quality of decision making

Parameter	Indicator	Means of verification
The quality of informed decision making.	Degree to which men and women understand the implications of project rules. Degree to which men and women took part in deciding whether to participate in a project. Degree to which men and women were able to select their preferred service level option, knowing the implications (including the costs) of doing so. Degree to which men and women felt that their interests were adequately represented in collective decision making.	Use of social maps to establish existence of different social groups within a community. Focus group discussions. Semi-structured interviews. Pocket chart voting.

Process quality indicators such as these can be scored and weighted to give an overall assessment of process quality. This, together with information on the resources used to plan and implement the project, can help policy makers and planners by establishing:

- A minimum level of demand responsiveness (this could be periodically revised as capacity to implement and support improved services grows).
- The resources and capacity needed to achieve this.
- A sustainable rate of scale up.

The need to achieve tangible results quickly reduces opportunities for people, especially women and the poor, to participate in informed decision making. Such pressure often arises when projects are scaled up too quickly. An example from Madhya Pradesh is described in Box 6.1.

Box 6.1. Scaling up too quickly?

During the preparation of these guidelines, a discussion was arranged in a village in Madhya Pradesh to discuss a community water and sanitation project and the various activities which had been planned.

Men and women were separated to see how opinions differed and to establish how women had been involved in the planning process. A number of chart papers displaying the outputs from a recent workshop were pinned to the walls of the meeting room, and the women present were asked to describe what they signified.

Of the forty women present, it transpired that three could read the Hindi script used. None could explain what the wall charts showed. A diagram showing relationships between stakeholders was interpreted as the village map. Although the women knew about the workshop, they had not been able to participate effectively.

During the following discussion, the women were asked to think of ways to improve their water supply. Several proposed a water harvesting structure (in this case a small permanent dam) to replace one that had been washed away. This would help maintain the water level in the wells they used.

The men of the village had apparently agreed another option independently of the women. Their plan was to pipe water to the village from a local borehole, installing a number of communal taps.

Staff from the implementing organisation, a relatively small NGO responsible for 80 water supply and sanitation projects throughout the Block, explained that they lacked resources and time to ensure that women were able to participate in the project process, but that they were kept fully informed.

Source: Deverill and Wedgwood (2001)

6.2 Suggestions for scaling up

Unfortunately, there are few significant examples of a demand responsive approach's being scaled up for which detailed information is available. The Sector Reform process in India is still in its infancy, while in other countries, until very recently the emphasis has been on donor-funded projects. Most of these depend on resources and capacity that are unlikely to be widely available. Such projects are, in effect, self-limiting.

However, many lessons can be inferred from scaling up in other sectors. The most important of these are summarised below.

1. **Monitor process quality**
   As already suggested, much depends on the quality of the approach used. Quality should be monitored both internally and externally to ensure that minimum standards are achieved. A variety of indicators should be used to cross-check results.

2. **Pilot implementation**
   Pilot projects should be selected or designed with scale-up specifically in mind. There is limited value in testing an approach that cannot be scaled up due to its unique circumstances or the level of resources it needs.

3. **Pilot supporting arrangements**
   Supporting arrangements (including policies, legislation and institutional arrangements) should if possible be piloted alongside implementation. This may require some innovative partnerships (for example, among communities, implementing organisations and local government departments).

4. **Use learning opportunities**
   Use of existing learning opportunities should be maximised. Information-sharing networks should be established and maintained. Learning requires a degree of transparency that encourages rather than discourages scrutiny. The lessons learned should be made widely available.

5. **Promote ownership**
   It is important that the organisations, individuals or households expected to be the end users of an approach have contributed significantly towards its design. This is achieved by encouraging those involved to adapt a generic

approach to suit the local context. This also ensures that organisations, individuals or households have the opportunity to make the best use of their existing capacity and experience.

6. **Invest in capacity development**
   Inevitably, the rate and degree to which a demand responsive approach can be scaled up is limited by the capacity to plan and implement projects and to support the services provided. Substantial resources need to be invested in developing capacity as effectively and efficiently as possible.

   The first step in this process is to assess existing capacity and to determine the gap between the demand side (what is needed) and the supply side (what is available). Critical weaknesses can then be identified together with opportunities to overcome them. Section 6.3 details how this could be done.

   This process recognises the value of existing capacity, and if well designed, can initiate the design of an effective capacity-development plan.

7. **Link resources to milestones**
   Incentives to engage in a process can include the conditional release of funds. This implies a staged approach, with the achievement of major objectives or milestones triggering the release of funds or other resources.

   The usefulness of such a system depends largely on (i) an effective monitoring system and (ii) the speed at which requests for further funding can be processed and funds can be released. Bureaucratic delays can quickly erode the credibility of an implementing organisation or a local management committee.

8. **Advocate by evaluating impact**
   The principal motivation for adopting a demand responsive approach is to improve the use, sustainability and thus the impact of the services being provided. It is therefore reasonable to evaluate completed projects along these parameters. The results can be used to improve the various approaches being used and to support the efforts of the sector to become more responsive to demand.

6.3 Assessing capacity for development

One of the most important activities associated with scaling up is capacity development. To do this, it is necessary to assess or map the level of capacity that is currently available and to compare this with what is likely to be required. Following this analysis, planning for capacity development can be initiated based on a reasonably accurate picture of the local situation.

The process of mapping, analysis and planning can be referred to as scoping. Although there are many scoping techniques to choose from, it may be most effective to use a systematic method that is based on two principles.

- Detailed knowledge of the demand responsive policy to be scaled up requires an understanding of its objectives, underlying principles and designated stakeholder roles and responsibilities, and

- Detailed knowledge of the stakeholders involved at different levels.

Simple checklists that describe the policy's objectives can be applied to different groups of stakeholders through interviews, focus group discussions and direct observation. This approach to scoping is currently being piloted in Ganjam District in Orissa, India, as part of the sector reform process. Table 6.2 demonstrates how data on existing capacity could be arranged in a simple matrix. If necessary, a scoring system could be developed to quantify the level of existing capacity.

Those in the scoping team should be selected in part from the institutions involved, ensuring that the resulting plan is owned by those responsible for its implementation.

Table 6.2. Matrix for assessing existing capacity

Factors	Stakeholder groups				
	State Level	District Level	Block Level	Village Level	Community Level
Knowledge of underlying principles of Sector Reform					
Knowledge of key rights and obligations					
Willingness and ability to perform allocated roles[1]					
Resources available					
Support available					
Potential bottlenecks					
Potential to support other stakeholders					

(1): This issue may have to be confirmed by considering a number of independent indicators

In practice, stakeholder groups need to be broken down further. For example, the community level group could be sub-divided into people from different castes, people with different types of livelihoods, and very importantly, men and women. Table 6.3 suggests how stakeholders at the district level could be analysed.

Furthermore, the checklists used may vary, depending on the stakeholders which are being consulted, without making the approach too complex or cumbersome to use. The checklist is not a list of questions, but rather an *aide memoire* of the important issues to be covered. Each point could be associated with a number of indicators.

The completed matrices provide sufficient information for more detailed analysis, priority actions, resource needs and a time frame. The data may also indicate a number of supply options that could be used to fill key gaps in capacity (these gaps can be considered the "demand" for capacity development in this context). It is therefore important that the matrix include institutions with a supply function, as shown in Table 6.3.

Table 6.3. Details of District Level Group

Factors	District Level Group				
	District Authority	**RWSS Dept**	**District NGOs**	**Private Sector**	**Training organisations**
Knowledge of underlying principles of Sector Reform					
Knowledge of key rights and obligations					
Willingness and ability to perform allocated roles					
Resources available					
Support available					
Potential bottlenecks					
Potential to support other stakeholders					

7. The way forward

Becoming more demand responsive has major implications for implementers, planners and policy makers. The difficulties of introducing change may even prevent these key stakeholders from moving away from former patterns of supply-led project implementation.

A number of measures for policymakers and planners have been described and recommended. These can facilitate the process of change. However, the need for change must first be recognised by the stakeholders involved. The previous section suggested that evaluating project performance can be used to drive change. With this in mind, it is worth repeating the conclusion of an evaluation conducted 10 years ago:

> The principle lesson from the International Drinking Water and Sanitation Decade is that 'progress and continuing success depend most on responding to consumer demand'.
>
> Cairncross (1992)

Many policy makers and planners belong to the government sector, and have a lead role to play in both introducing and scaling up a demand responsive approach. The following table indicates the breadth of their potential responsibilities.

Table 7.1. Summary of possible tasks for policy makers and planners. For details see the relevant sections in this booklet.

Possible task	Summary
Support to capacity development	Assess the overall capacity of stakeholders to implement a demand responsive approach. Support capacity development to fill critical gaps identified in assessment.
Policy review and formulation	Review and if necessary rewrite policies to favour the introduction and scaling up of a demand responsive approach. Draft specific project rules in consultation with other stakeholders. If an incremental approach is adopted, policies and project rules should be reviewed periodically.
Legislation review and formulation	Review and if necessary amend or replace legislation associated with policies and project rules.
Guidelines preparation	Prepare and disseminate guidelines to implementing organisations and other stakeholders, clarifying the application of policies.
Advocacy and networking	Establish a learning culture and maximise opportunities for learning and information exchange.
Regulation and enforcement	Regulate the activities of implementing organisations as necessary in order to protect people and the environment. Establish a system to monitor and if necessary enforce project rules.
Monitoring and evaluation	Monitor and evaluate both process and service quality, using the results to amend policies, legislation and capacity building programmes. Pay specific attention to the impact of project approaches on vulnerable groups.

The implications of adopting and scaling up a demand responsive approach are particularly significant for policy makers and planners in government. As suggested, implementing a demand responsive approach will require that most existing policies and legislation be changed. Scaling up a demand responsive approach may require the government departments involved in water supply and sanitation to re-orient themselves before they can undertake the types of task identified in Table 7.1.

7.1 The first step

The transition from a supply-led to a more demand responsive approach can be made more easily in a series of incremental stages over a period of time. This allows time for perceptions to change, capacity to be strengthened, and very importantly, for the process and its impact to be evaluated.

To assist with this process, a minimum level of demand responsiveness needs to be defined - in effect, a "default level". This should be based on the principles of meeting demand, and designed to yield significant improvements in the usefulness and sustainability of the services provided. At the same time, it should be practicable in terms of the capacity and resources needed as inputs.

Based on the research conducted for this book, we suggest the following default in Box 7.1. This Box completes this book and summarises these guidelines on designing water supply and sanitation projects to meet demand in rural and peri-urban areas. If these guidelines have improved the reader's knowledge of what demand is, and what designing to meet demand entails, they will have succeeded in meeting their aim. It is, however, the *application* of knowledge that brings about change.

The Designing for Demand website, www.lboro.ac.uk/wedc/projects/d4d, will be maintained to help disseminate the knowledge gained during the preparation of these guidelines. In the hope of benefiting as many as possible, WEDC would very much like to use this site to record any reader's experiences of implementing demand responsive projects. We would also welcome feedback on these guidelines. For details, please refer to our website or write to WEDC.

Box 7.1 A default (or minimum level) approach

It is suggested that, as a minimum, a demand responsive approach should include the activities tabulated below. These are based on the principles of meeting demand (see Page iii of this booklet) whilst taking into account limitations in capacity and resources. Once the impact of this approach is evaluated, it could be enhanced to improve the quality of informed decision making and demand assessment.

Box 7.1 continued

Stage in project cycle	**Minimum default activity** (Section numbers in brackets refers to Book 1 of these guidelines)
Preparation	Confirm policies, legislation and stakeholder roles and responsibilities (8.1, 13.2). Conduct an initial assessment of demand, visiting a cross section of communities, investigating coping strategies and other indicators of likely demand (8.2). Formalise a project communication strategy (9, 10.3.2).
Selection	If applicable, agree on community or sub-project selection criteria that include appropriate indicators of demand (9).
Planning and implementation	Jointly identify feasible options with potential users (10.1, 10.2). Develop a minimum of three service level options that are most likely to capture demand. During option development, ensure consultation with potential users. Ensure that vulnerable groups are not excluded (10.3). Cost the developed options and price them accordingly, taking into account replacement costs (10.4). Allow users to select their preferred options. This can be achieved collectively through a process of negotiation. Ensure that vulnerable groups are able to participate in this process (11.1). Jointly develop management and maintenance systems. Train managers in the roles they are expected to perform. Establish and practice links with support organisations (11.3, 11.4).
Monitoring and evaluation	Jointly monitor process quality and impact. Document and disseminate experience (11.3.4, 12.1)

References

Cairncross, S. (1992) *Sanitation and Water Supply: Practical lessons from the decade: Water and sanitation.* Discussion Paper Series No 9. Water and Sanitation Programme. Washington DC, 1992

Deverill, P. and Wedgwood, A (2001) *Designing to Meet Demand: Reports from field visits to South Africa, Tanzania, Nepal and India*. Water, Engineering and Development Centre, February 2001

DWAF (1997) *The Republic of South Africa Water Services Act 108 of 1997*. Government of the Republic of South Africa, Pretoria, 1997. Details at: www.dwaf.gov.za/documents/legislature/wsa97.pdf

Gross, B., Van Wijk, C., and Mukherjee, N. (2001) *Linking Sustainability with Demand, Gender and Poverty: A study in community managed water supply projects in 15 countries.* Study undertaken by WSP and IRC. Water and Sanitation Programme, Washington DC.

Leblanc, M.E. (2002*) The integration of water supply and sanitation: A success?* MSc research project. WEDC, September 2001

Mukherjee, N. (2001) *Achieving Sustained Sanitation for the Poor* Water and Sanitation Programme (East Asia and the Pacific), April 2001

Sara, J. and Katz, T. (1997) *Making Rural Water Supply Sustainable: Report on the impact of project rules.* Water and Sanitation Programme, Washington DC, 1997

Van Wijk, C. (2001) *The Best of two Worlds? Methodology for participatory assessment of community water services.* IRC Technical Paper Series 38, IRC International Centre for Water Supply and Sanitation, Delft, the Netherlands 2001

WaterAid (2001) *Looking back: the long-term impacts of water and sanitation projects.* Condensed Report, WaterAid London, June 2001

Wedgwood, A. and Sansom, K (forthcoming) *Guidelines on Streamlining Contingent Valuation*. Water, Engineering and Development Centre (scheduled for publication in 2002)

WELL (1998) DFID Guidance manual on water supply and sanitation programmes. Published by WEDC for DFID, 1998

White, J. (1997) *Evaluation Synthesis of Rural Water and Sanitation Projects.* DFID evaluation report EV 596, Department for International Development, May 1997

WHO (2000) *Global Water Supply and Sanitation Assessment 2000.* WHO, Geneva, Switzerland. Details at: http://www.who.int

Glossary

Glossary

Affordability	The capacity to pay for a service. Affordability is often *assumed* by project staff, based on a fixed proportion of household income or the ownership of assets rather than on user perceptions of the service on offer.
Contingent valuation	A demand assessment technique. Several options (each associated with a range of prices) are described to a sample of potential users who then indicate their preferences. The technique requires specialist skills and is most cost effective in high-density urban and peri-urban areas.
Demand	In this context, demand is defined as *an informed expression of desire for a particular service, assessed by the investments people are prepared to make, over the lifetime of the service, to receive and sustain it.*
Demand assessment	Any technique used to gauge or measure demand. These can be classified as (i) indirect, based mostly on field observations (e.g. a revealed preference survey), or (ii) direct, relying on people expressing an opinion about a particular service (as used in contingent valuation).
Demand stimulation	Techniques used to unlock latent demand. This may involve promoting the characteristics of options which are known to be desirable. This reinforces the importance of developing options that take into account people's preferences and priorities.
Enabling Environment	Relevant policies, legislation and institutional arrangements that support the design and implementation of projects and the sustainability of the services provided.

Focus group	A small group of individuals with a similar social, cultural or economic background, brought together with a facilitator to explore a particular issue.
Latent demand	Demand which is only revealed after it has been stimulated. See demand stimulation.
Livelihood	The capacity, assets (a combination of social, human, financial, natural and physical resources) and activities needed to sustain a particular lifestyle.
Sanitation	In its narrowest sense, sanitation is the safe management of excreta, including human and animal excreta. More broadly, the term includes the management of wastewater and solid waste as well as storm water drainage.
Service	The system that provides users with a particular function (e.g. improved water supply or sanitation). A service includes facilities and their management, contribution and support mechanisms.
Service level	(Or level of service). Used to describe the relative quality of the service being provided to users. This is often associated with physical infrastructure, for example, a communal tap or well, a yard tap or family well, and an in-house private connection.
Social marketing	The application of marketing techniques to stimulate demand. The underlying motivation is to reduce exposure to environmental health risks rather than profit.
Sustainable livelihoods	A holistic approach to development, focusing on people's access to and control over assets and resources; their vulnerability and the supporting framework (made up of policies, legislation and institutions).

Triangulation	Confirming the results of a sociological investigation by cross-checking with the results of other investigations.
Watsan	Water supply and sanitation.
Willingness to pay	The financial or economic contribution that people are willing to make to receive or sustain a particular service.