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# *Serving all urban consumers - a marketing approach to water services in low- and middle-income countries: Book 2 - Guidance notes for managers*

This item was submitted to Loughborough University's Institutional Repository by the/an author.

**Citation:** SANSOM, K. ... et al, 2004. Serving all urban consumers - a marketing approach to water services in low- and middle-income countries: Book 2 - Guidance notes for managers. Loughborough: WEDC, Loughborough University.

**Additional Information:**

- This record is made up of 20 files. Individual chapters and the complete pdf are available to download from the record.

**Metadata Record:** <https://dspace.lboro.ac.uk/2134/30757>

**Version:** Published

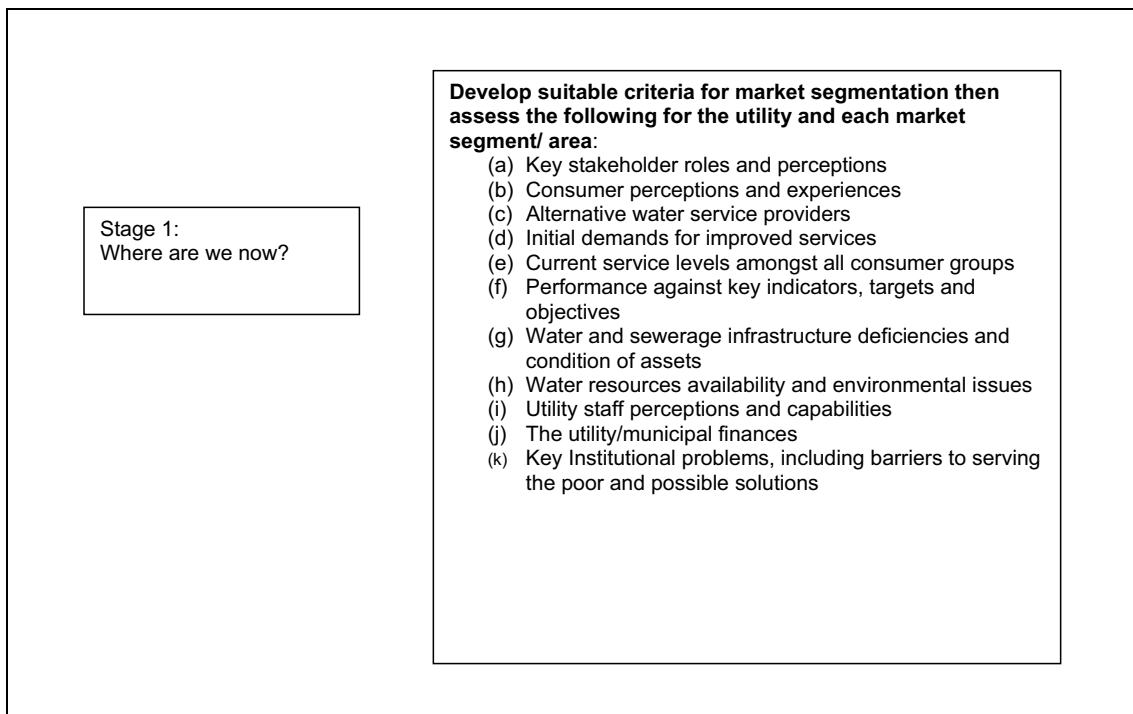
**Publisher:** WEDC, Loughborough University

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## Chapter 6

### Stage 1: 'Where are we now'?



The typical key aspects to be examined (listed above) and that are necessary for a utility/municipality to satisfactorily answer the question 'Where are we now' can be assessed using consumer surveys, institutional appraisal and infrastructure surveys. The adequacy of infrastructure can be assessed based on what additional infrastructure is required to meet agreed and realistic performance targets for each area.

Some of the key issues that should be examined as part of a situation analysis - and the main institutional appraisal techniques that are commonly used - are discussed in the following sections. The appraisal process should seek to integrate technical, institutional, financial, economic and social issues to ensure a thorough analysis. Many of the issues listed in the box above are important for effective utility management, but not all issues are directly related to the subject of this publication - that is marketing approaches for the urban water sector. Hence issues such as water resource availability are not dealt with in this book.

A good situation analysis looking at the issues identified above has many benefits. It can provide good data and information for much of a utility's planning activities, leading to targeted interventions and appropriate solutions.

## 6.1 Key consumer data

Information from consumer surveys provides the most important data for a marketing study: the experiences and perceptions of the most valuable stakeholders - existing and potential customers. Table 6.1 shows performance against key indicators for each market segment from a consumer survey conducted in Mombasa in 1999.

The difference in service levels between the different market segments are very apparent from the above table. Such consumer survey information can be compared with the utility's own system performance data to check for any anomalies. Another method of presenting data is the piechart. Figure 6.1 shows a piechart for the average water supply hours each day that was included in the Mombasa strategic marketing plan.

Another example of data collected as part of a consumer survey in Guntur, India, is shown in Table 6.2. The widely differing means of household water storage for different market segments is very apparent. The poorer households in slums and unplanned areas are clearly more vulnerable in times of water shortages.

It is important to independently survey key information such as consumption per capita per day. If you ask those responsible for service delivery they are likely to provide estimates near to the agreed norms. Table 6.3 includes survey data on water consumption per day in Lesotho's districts. This information was obtained from a marketing analysis of the water and sewerage authority in Lesotho in 2001.

In terms of selecting which consumer survey data to include in utility reports, a number of factors need to be borne in mind, including:

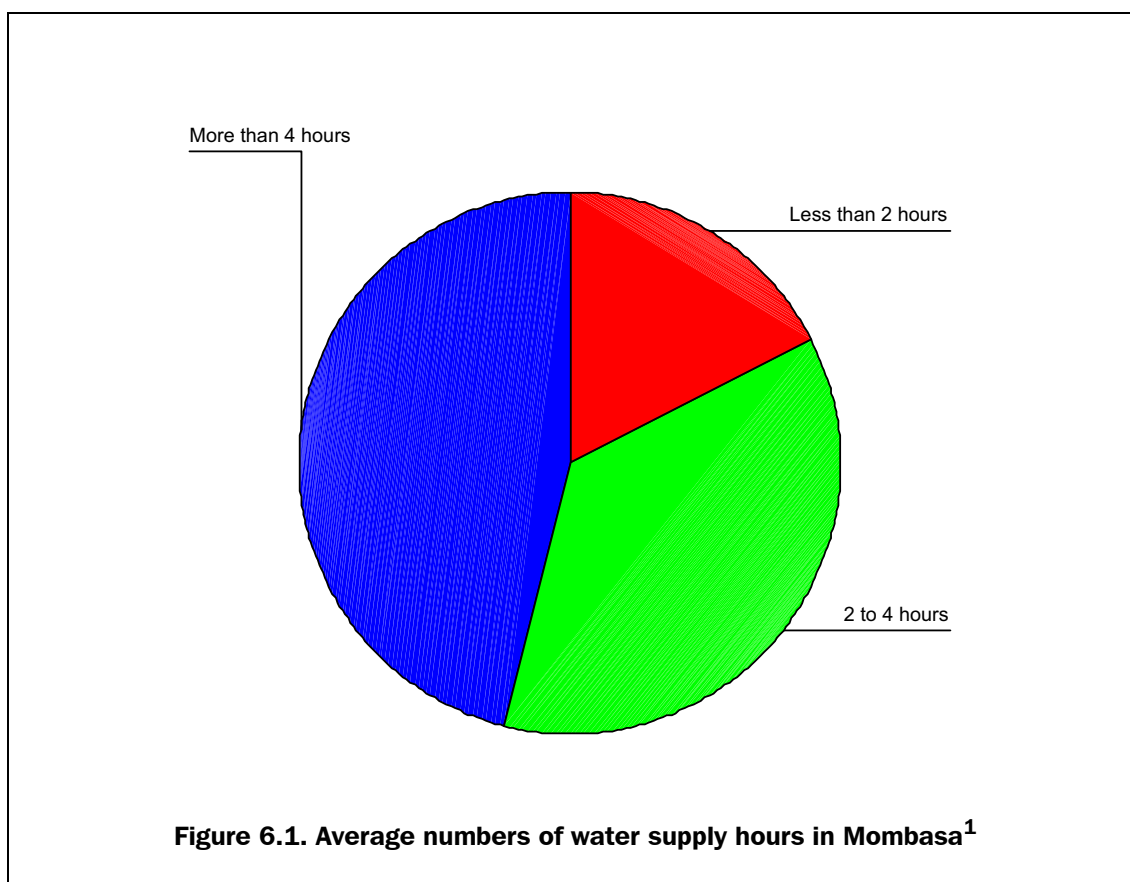
- The purpose of the report - different reports may require different data sets to substantiate conclusions.
- Which sets of data can best represent the experiences, perceptions and coping strategies of different market segments or groups, as part of a report describing where the consumers are now. Sometimes a number of data sets or tables, graphs, etc. are required to convey a clear picture.
- Which sets of consumer survey data support the arguments for proposed investments or options most effectively?

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**Table 6.1. Mombasa summary of existing services in each market segment<sup>1</sup>**

<b>Selected parameter</b>	<b>Bungalows and maisonettes</b>	<b>Flats</b>	<b>1, 2 or 3-roomed dwellings and Swahili houses</b>	<b>Informal settlements (slums)</b>
Electricity supply in dwelling	100%	97%	60%	6%
Do not receive water directly from NWCP	35%	17%	58%	96%
Receive continuous supply of water from NWCP	30%	31%	13%	2%
Receive water once or twice a day from NWCP	27%	40%	24%	1%
Individual house connections	94%	78%	23%	2%
Shared connections	Nil	12%	28%	4%
No piped water connection	6%	10%	49%	94%
Pays NWCP for water directly	70%	74%	36%	1%
Obtains free water from b/hole or well	5%	3%	39%	41%
Obtains water from handcart vendors	18%	45%	57%	46%
Obtains water from kiosks	Nil	22%	56%	79%
Proportion with own b/holes/wells	39%	Nil	2%	Nil
Monthly water bill	KSh1400	KSh500	KSh450	KSh425--741
People in household	6.81	5.52	6.31	5.44
Main water source	Individual house connections (59%) and own boreholes or wells (25%)	Individual house connections (71%) and shared connections (12%)	Water kiosks (44%) and shared connections (23%)	Water kiosks (70%) and boreholes or wells (18%)

1. Source: Njiru and Sansom (2000)



1. Source: Njiru and Sansom (2000)

**Table 6.2. Methods of water storage in Guntur, India<sup>1</sup>**

Market segment		Percentage
Bungalows	Roof tank or ground tank or both	<b>100</b>
Independent houses in planned areas	Roof tank	<b>80</b>
Flats in planned areas	Roof tank or ground tank or both	<b>100</b>
Independent houses in unplanned areas	Small containers or buckets	<b>47</b>
Flats in unplanned areas	Roof tank or ground tank or both	<b>97</b>
Slums with some water supply coverage	Small containers or buckets	<b>96</b>
Slums with no water supply coverage	Small containers or buckets	<b>100</b>

1. Source: Narender and Chary (2002)

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**Table 6.3. Lesotho water consumption per district<sup>1</sup>**

District	No water	<7 litres/capita/day	7-30 litres/c/d	>30 litres/c/d
Butha-Buthe	2%	24%	42%	32%
Leribe	7%	23%	48%	22%
Berea	6%	19%	36%	39%
Maseru	4%	17%	44%	34%
Mafeteng	3%	28%	39%	30%
Mohale's Hoek	3%	23%	38%	36%
Quthing	1%	14%	57%	29%
Qacha's Nek	2%	2%	46%	51%
Mokhotlong	6%	9%	27%	58%
Thaab-Tseka	4%	35%	41%	20%
<b>Total</b>	<b>4%</b>	<b>19%</b>	<b>43%</b>	<b>35%</b>

1. Source: Sechaba consultants (1996) cited in Kamalie (2001)

## 6.2 Perceptions and preferences of low-income groups

The PREPP methodology (mentioned in Section 2.9) provides a rapid and participatory method of assessing the perceptions and preferences of people living in informal settlements. Initial demand can be assessed with this methodology, using a costed option ranking approach. Table 6.4 shows the results of group and individual ranking of existing service options by women in five informal settlements in Guntur, India. Number 1 represents the highest rank. The preferred existing options were individual pipe connections followed by public standposts and tankers. The results for the men's group were similar. The unexpected high ranking for tankers in some areas would be worth further investigation.

**Table 6.4. Guntur preferences for existing water options<sup>1</sup>**

Existing options (women's preferences)	I		II		III		IV		V	
	K.B. Colony		A.T. Agraharam		Nallakunta		Anandpet		Nallacheruvu	
	Group	Individual	Group	Individual	Group	Individual	Group	Individual	Group	Individual
Individual connections	-	-	1	3	1	4	-	-	1	-
Public standpost	-	-	2	2	3	4	1	-	2	7
Open well	-	-	5	-	-	-	-	-	6	-
Municipal water tanker	1	5	3	1	4	-	2	-	-	5
Fetching from public standpost in nearby slum	2	5	-	-	-	-	-	-	-	-
Public borewell (handpump)	4	-	4	-	-	-	3	-	3	-
Private vendors		-	-	-	5	-	-	-	5	-
On cycle		-	-	-	-	-	-	-	-	-
Water fetching		-	-	-	-	-	4	-	4	-
Rainwater	3	-	-	-	-	-	-	-	-	-
Pit tap	-	-	-	-	2	-	-	-	-	-

1. Source: Narender, Chary and Coates (2002)

Table 6.5 summarizes the results of group and individual rankings of proposed service options by women in six informal settlements in Guntur, India. Each of the proposed options that could be provided by the utility (Guntur Municipal Corporation) were given realistic costs by the facilitators during the option ranking process.

**Table 6.5. Guntur preferences for proposed water options<sup>1</sup>**

Proposed Options (omen)	I		II		III		IV		V		VI	
	K.B. Colony		A.T Agraharam		Nallakunta		Anandpet		Nallacheruvu		LR Colony	
	Group	Individual	Group	Individual	Group	Individual	Group	Individual	Group	Individual	Group	Individual
Community managed PSP	3	-	5	-	1	1	2	1		-	3	3
Shared connection	1		1	3	2	5	1	7	2	3	3	1
Individual connection*	2*		3	1	-		-	-	1	7	2	3
Ground tank connected to municipal line	-		2	-	-		-	-	-	-	-	-
Ground tank connected to bore well	-	-	-	-	-		-	-	-	-	-	4
Ground tank connected to water tanker	-	-	-	-	-		-	-	-	-	-	-
Ground tank connected to open well	-	-	-	-	-		-	-	-	-	-	-
Water kiosk (Municipal water)	-	-	4	-	3		-	-	-	3	-	-
Open wells	-	-	-	-	-		-	-	-	-	-	-

1. Source: Narender, Chary and Coates (2002)

Note: \*If connection fee is spread over instalments

The preferred option proposed is for shared or group connections, followed by community-managed public standposts and individual connections. This preference is probably motivated by the perceived affordability of the group connections and public standposts, compared to the individual connections.

By using a reasonably rapid demand assessment approach such as PREPP or a similar technique, a good picture emerges of initial demand in informal settlements and potential service options for further investigation. Such data can contribute to answering the question 'Where are we now?' If necessary, more detailed demand assessment can then be carried out during the 'Where do we want to be' stage.



### 6.3 Alternative water service providers

Alternative water service providers or small water enterprises (SWEs) (as discussed in Section 4.4), often collectively have a substantial share of the water market in cities and towns in developing countries. It is therefore advisable for water utilities to analyse the alternative service providers in their areas of jurisdiction. The analysis will enable the utilities to make informed strategic decisions on how best to improve service provision. Some of the questions to be answered in the analysis are:

- Who are the major groups of alternative water service providers?
- What strategy are they pursuing, and how successful are they?
- What strengths and weakness do they possess in comparison with the utility?

In some cities, the service being provided by alternative water service providers is indispensable, although expensive for consumers. Box 6.1 shows an example of the impact of alternative water service suppliers in Nairobi.

#### **Box 6.1. The water kiosks of Kibera, Nairobi<sup>1</sup>**

With an estimated population of 500,000 people, Kibera is home to a quarter of the population of the City of Nairobi. Poor water supply and sanitation are among the most serious infrastructural problems. A study carried out in 1997 came up with the following major findings:

- Water kiosks that are mainly owned and operated by individual residents predominantly serve Kibera. A few kiosks are owned and operated by community groups.
- Nairobi City Council Water and Sewerage Department (WSD) licenses kiosk operators.
- The principal customers of the kiosks were neighbours and tenants. Water vendors purchase water from the kiosks in Kibera and sell it to the neighbouring areas whenever there is a water shortage.
- Only one in six kiosks have any form of superstructure, while two in three kiosks have storage tanks.
- One of the main complaints from the kiosk operators is reliability of services from WSD pipelines.
- Water was sold at twice the price recommended by WSD during the normal supply periods. During water shortages, the price goes up.
- The kiosk owners cited delayed and irregular meter readings and bills.
- Only 10 per cent of the water consumed in Kibera was billed for. There were many instances of illegal connection, and low revenue collection efficiency

1. Source: Field Note UNDP-World Bank Water and Sanitation Program, East and Southern Africa Region

Documenting the size and characteristics of the alternative water providers market in a city is important for Stage 1 as it provides valuable information for developing strategies for working with or competing against SWEs as part of Stage 2.

## 6.4 Institutional appraisal and development overview

Institutional appraisal and development, when practiced in a comprehensive manner, enables organizations to work systematically towards achieving their agreed objectives, provided those objectives are realistic. Unless a thorough analysis of a utility's performance is carried out, how can the utility be sure that it can sustainably and reliably extend services to new areas?

Institutional development (ID) is 'the process of improving an institution's ability to make *effective [and efficient]* use of the human and financial re-sources available.'

Israel (1987)

The term 'effective' in the ID definition above refers to the extent to which objectives are being achieved. The term 'efficient' relates to developing improved outputs from the inputs provided. The development of organizations to carry out improvements in service provision has to come from the people involved.

Cullivan et al. (1987) point out that:

*'Institutional problems are qualitatively different from specific technical or procedural problems. They affect broad areas of operational performance and therefore are "cross-cutting". Often deficiencies in an easily identifiable area of institutional output are identified as the primary problem when in reality the deficiency identified is merely a symptom of the larger problem.'*

Institutional development seeks to encourage the development of the necessary spectrum of appropriate organizations to deliver services levels that customers want ('Where do we want to be?'). 'An institutional development project focuses on the development of comprehensive organizational systems and the people within the system which make them work' (Edwards, 1988). This can best be done by first analysing or undertaking an appraisal of the present situation in a systematic manner ('Where are we now?'). It is preferable that key informants including the utility staff participate in the appraisal.

### **Key elements of institutional analysis and development**

In appraising or assessing water utilities, we also need to be aware of the potential areas and scope for institutional improvements that could be proposed in Stages 2 and 3. For comprehensive institutional development there are six key elements that need to be borne in mind. These are set out in Table 6.6 together with water sector examples of each element. Many of these examples typify good commercial approaches with a focus on serving poorer communities. If such initiatives are not currently being undertaken and they are considered sensible, this can be noted as part of the analysis during Stage 1. In order to fully ask the question 'Where are we now?' we need to consider what can be done to make services better. Hence the need to consider issues such as those set out in Table 6.6.

**Table 6.6. Key elements of institutional development**

Key elements	Examples for each element
1. Structural and organizational adjustment	<ul style="list-style-type: none"> <li>· Provide more organizational and financial autonomy for the water service provider organization, which provides them with the flexibility to make improvements.</li> <li>· Introduce PPP management options with well-designed contracts that include provisions for serving the poor.</li> <li>· Provide a regulatory organization for water and sewerage services, with responsibilities to ensure efficient services to all consumer groups.</li> <li>· Create a focused department or section that deals with services to informal settlements.</li> </ul>
2. Agreeing roles, policies, objectives and performance targets	<ul style="list-style-type: none"> <li>· Introduce the universal service obligation policy.</li> <li>· Agree roles amongst key stakeholders in order to improve services in poor communities.</li> <li>· Set realistic performance targets for each market segment and area served, against key indicators.</li> </ul>
3. Human resource management	<ul style="list-style-type: none"> <li>· Update recruitment policy to appoint people with the required skills for strategic marketing approaches.</li> <li>· Conduct training needs analyses amongst staff based on the organization's objectives and open staff appraisals, then implement and monitor training programme.</li> <li>· Introduce more flexibility in contracting out services, recruitment, dismissal and redundancy procedures.</li> <li>· Provide more incentives for staff and partners in terms of aspects such as more responsibility and pay for good performance.</li> </ul>
4. Management development	<ul style="list-style-type: none"> <li>· Delegate more duties and powers to staff lower down the organization and area offices.</li> <li>· Implement strategic marketing approaches throughout the organization.</li> <li>· Introduce a Total Quality Management (TQM) programme aimed at improving inter-departmental collaboration and services to all consumers.</li> <li>· Involve staff at all levels in change programmes.</li> </ul>
5. Systems and procedures development	<ul style="list-style-type: none"> <li>· Use preventative and corrective O&amp;M management systems.</li> <li>· Introduce streamlined customer friendly procedures for bill payment, new connections, complaints redressal, etc.</li> <li>· Use flexible procedures developed for informal settlements.</li> <li>· Provide commercial double entry accounting.</li> <li>· Use well-designed computer billing systems.</li> </ul>
6. Physical and financial resources	<ul style="list-style-type: none"> <li>· Maximize revenues and control costs.</li> <li>· Construct dialogue with potential financiers and look for innovative ways to serve poorer areas.</li> </ul>

A comprehensive strategic marketing programme would need to consider all these six institutional development areas. Previous experience has shown that institutional development programmes need to be comprehensive; deficiencies in one area can subvert the best efforts to improve one sub-system alone. Emphasis on each element would depend on the programme objectives and priority areas identified.

### ***Tools for appraisal***

For institutional appraisals, the utility's and government's policies, plans and progress against those plans provide a useful starting point. It is important to consult widely using participatory techniques such as semi-structured interviews, workshops and stakeholder analyses to develop a common understanding of the inter-linkages of problems and potential solutions.

Some of the key institutional appraisal techniques and considerations are summarized below with a brief discussion of their applicability:

### ***Activity and responsibility analyses***

An activity and responsibility matrix provides the institutional setting by specifying the degree of involvement and the roles played by stakeholders in carrying out key tasks. The matrix can be done at sector, corporate or departmental levels, depending on the objective of the analysis. Activity/responsibility matrices are a particularly useful tool in the water sector for establishing the actual allocation of responsibilities between the various institutions and highlighting problems with overlapping or fragmented responsibilities. Table 6.7 shows an example of an Activity and Responsibility Matrix for the urban water sector in Maharashtra, India.

With such a diverse spread of responsibilities there is only a limited opportunity to hold any organization accountable for service provision and implementing strategic marketing approaches. The most obvious service provider is the municipal water department, but they have very limited levels of responsibility (as of 1999). The other key stakeholders such as the state government, councillors, administrators and municipal finance departments are also concerned with many other services and are not able to devote sufficient time to water service provision. If many of these responsibilities were reallocated to one specialized service provider and one or two enabling agencies, the scope for improved accountability and services would be increased substantially.

### ***Performance measurement***

Performance measurement against key indicators is an objective means of assessing actual utility performance and services to consumers, in comparison with the agreed corporate and government objectives. Effective performance measurement is essential for city-wide service improvements on a sustainable basis, as part of a strategic marketing approach, and the benefits it offers include:

- more focused and better integrated performance data;
- easier identification of good and poor performance;
- strengthened mechanisms for identifying the causes of good or poor performance;

**Table 6.7. Urban watsan services responsibilities in Maharashtra<sup>1</sup>**

	Management of O&M	Operational investment	Capital investment	Agreeing water tariff levels	Agreeing municipal staffing levels	Human resource development
<b>Central government</b>			Approves some grants and loans	Sets policy guidelines	Interested	Policy and funding
<b>State government</b>	Involved	Some subsidies	Administrative approvals	Sets maximum and minimum limits	<b>Key role:</b> Sets limits and norms	Provides training facilities
<b>State water board</b>	Undertakes O&M in some towns	Interested	Technical approvals	Involved for new schemes	Involved	Provision of some training
<b>Municipal councillors and administrators</b>	<b>Key role:</b> Overseeing management	<b>Key role:</b> determines priorities	<b>Key role:</b> determines priorities	<b>Key role:</b> determines tariff levels	Approval role	<b>Key role:</b> determines priorities
<b>Municipal water supply department</b>	Day-to-day management	Puts forward proposals	Develops proposals with consultants	Involved in preparation of proposals	Puts forward proposals	Puts forward proposals
<b>Municipal finance department</b>	Controls cash flow	Financial approvals	Financial management	Puts forward proposals	Involved in financial implications	Involved in financial implications
<b>Consumers</b>	Report complaints, sometimes through Councillors			Involved through lobbying of Councillors		

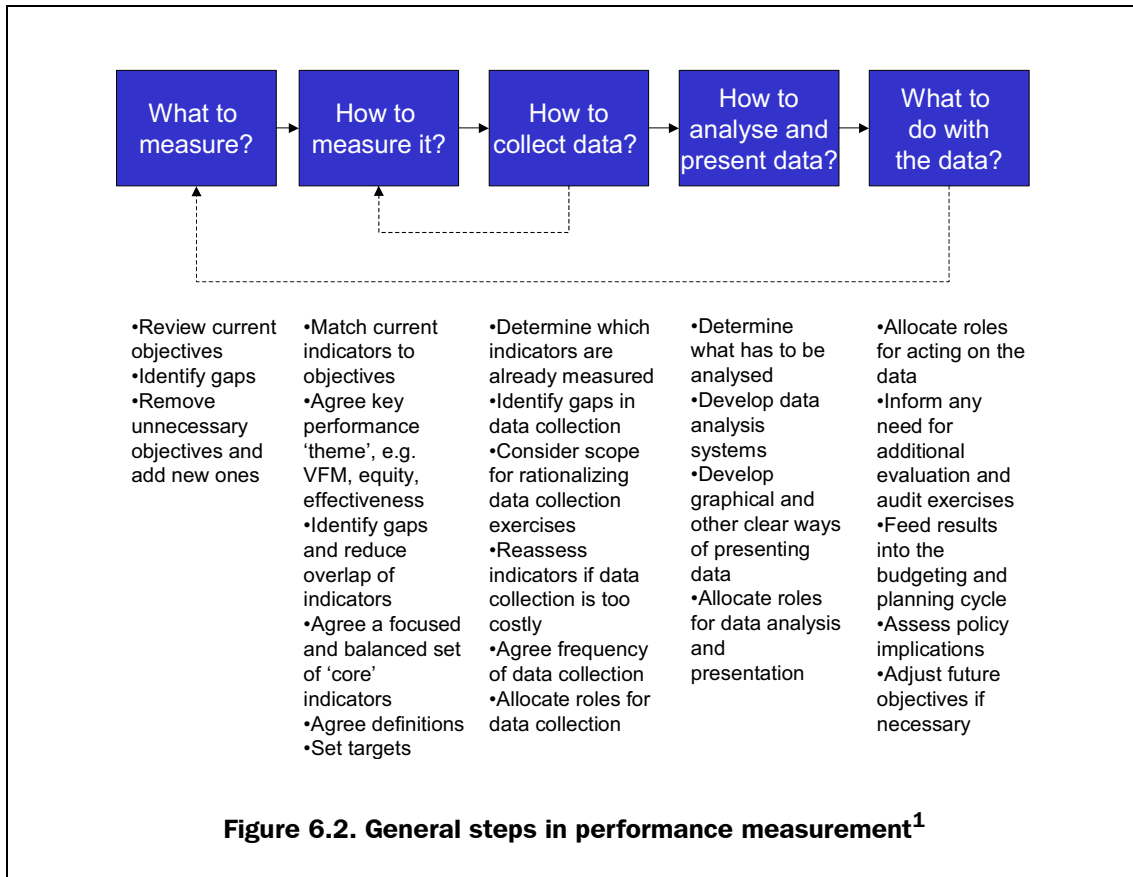
1. Source: based on Franceys and Sansom (1999)

- more focused institutional roles for assessing and acting on sector performance and a framework against which capacity-building strategies and targets can potentially be developed;
- integration of all the 'tools' of performance measurement, e.g. operational monitoring, value for money review, technical audits, financial tracking studies, evaluation, etc.;
- improved information for assessing the effectiveness of water and sanitation policy and for enabling better policymaking; and
- a more credible system for arguing for more resources for the water and sanitation sector and allocating resources within the sector.

Source: Thomson (2003)

Such potential benefits are very relevant both for utilities and for government departments who are concerned with broader national economic and social objectives, such as improving services to the poor. Government departments in their enabling role should therefore promote and expect effective performance measurement of utility services. The key performance measurement steps can be broken down into five components, as shown in the Figure 6.2.

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1. Source: Thomson (2003)

The key stakeholders such as government, utilities, regulator and consumer representatives have clear interests in ensuring that the performance measurement process is effective. This includes the activities listed in Figure 6.2 and the transparent exchange of information amongst the stakeholders.

### **Utility performance indicators and ratios**

If utility performance is to be improved for all consumer groups, then we need to plan and monitor for improvements across all the utility's services using appropriate indicators. Performance should be assessed in terms of trends against key indicators over a number of years, rather than snapshots of performance. The most common performance indicators for water supply utilities relate to the themes of production, delivery, consumption, efficiency, effectiveness and finance. It is important to note that no single indicator is sufficient to provide a meaningful picture.

Table 6.8 shows examples of finance and economic indicators and ratios. Table 6.9 shows typical performance indicators and ratios that could be adapted for a given utility.

Note that there are columns in the tables for recording actual values and target values. This is a useful means of planning improvements and monitoring progress. In the third column the formulae for the relevant ratio is included. When assessing utility finances it is important to also examine any hidden subsidies.

**Table 6.8. Financial indicator and ratio examples**

Category	Indicator or ratio	Formulae	Actual latest value	Target for next year	Sector average
Marketing	Socio-economic GNP per capita				
	Average WTP to vendors				
Financial sustainability	Average domestic tariff				
	Comm. tariff				
	Sewerage tariff				
Profitability	Operating ratio	$\frac{\text{total cost}}{\text{total revenue}}$			
	Return on fixed assets	$\frac{\text{profit after depreciation}}{\text{net fixed assets}}$			
Liquidity	Current ratio	$\frac{\text{current assets}}{\text{current liabilities}}$			
Creditworthiness	Debt equity ratio	$\frac{\text{long term loans}}{\text{equity}}$			
Financial efficiency	Days receivable ratio	$\frac{365 \times \text{accounts receivable}}{\text{annual billed revenue}}$			
	Bill collection efficiency	% of bills collected			

Those utilities who are considering a benchmarking programme should refer to the World Bank benchmarking toolkit for water and sanitation on their website. It is also beneficial to collect data per market segment or area, so that priority areas for improvement can be identified.

### **Potential indicators for serving all consumer groups**

The United Nations Department of Economic and Social Affairs (UNDESA) estimates that by the year 2015, 88 per cent of all the increase in global population will live in urban areas of low-income countries (UNDESA Population Division, 2001). Owing to the fact that the economic growth of these countries will often not match the population increase, a larger fraction of people in urban areas of low-income countries will live in low-income settlements. There is a need, therefore, to ensure that services are delivered to these low-income communities in order to reduce human suffering.

In addition to the more general performance indicators for water utilities, indicators can be developed that specifically cater for improvements in service delivery to the different consumer groups, including low-income settlements, based on consumer surveys. These indicators can then be used to set targets and monitor trends in service levels amongst the different consumer groups. A sample format is shown in Table 6.10, which has separate columns for each market segment (based on research work in Uganda and Mombasa).

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**Table 6.9. Performance indicator and ratio examples**

Category	Indicator or ratio	Formulae	Actual latest value	Target for next year	Sector average
Water production	Quantity of water produced	Volume treated			
	Quality of water produced	Percentage samples acceptable			
	Transmission factor	Source distance x elevation/100,000			
	Production Factor	Energy & chemicals costs as percentage of operation costs			
Water delivery (for whole city)	Target population				
	Average no. of people/ connection	Total population/no. of connections			
	Service coverage	Percentage of population served			
	Service delivery	Percentage of connections/standpipes			
Efficiency	Supply hours	Average supply hours per day at acceptable pressure			
	Non-revenue water	Percentage of water paid for/water produced			
	Maintenance	Frequency of burst/km pipes			
Consumption	Quantity of water consumed per person	Served population/water consumed			
	Working meters	Percentage of working consumption meters			
	Quality of water delivered	Percentage of samples acceptable			
Sewerage	Service coverage	Percentage of population connected to sewers			
		Percentage of population with acceptable on-site sanitation			
	Maintenance	Frequency of failure/km sewers			
	Treatment	Percentage of wastewater treated			
Effectiveness	Extent of water- related diseases	Diarrhoea /cholera/ typhoid cases per million per year			
	Customer satisfaction surveys	Proportion customers questioned expressing satisfaction			
Productivity	Staffing levels	Connections per employee			
		Population served per employee			
		Staffing costs as percentage of operation costs			



**Table 6.10. Service levels indicators from consumer surveys**

Example service delivery indicators	Example market segments			
	Residential houses and bungalows	Flats	One to three-room Swahili houses	Informal settlements
1. Percentage of households with their own in-house pipe connection				
2. Percentage of households with their own yard pipe connection				
3. Percentage of households who buy water from a neighbour				
4. Percentage of households using water kiosks or standposts				
5. Percentage of households who obtain water from alternative sources such as springs, wells and roof catchments				
6. Percentage of households who use more than one source				
7. Average total water consumption per person in the house - litre/person/day				
8. Average number of hours of utility water supply per day				
9. Average number of days per week that utility water is supplied				
10. Average time taken to collect all the water for the household each day from all sources (minutes)				
11. Average distance to nearest usable piped water source				
12. Average monthly household water bill				
13. Average vendor prices				
14. Percentage of both women and men satisfied with utility services				
15. Percentage of households who regularly use a functioning sanitation system within 20 metres of their residence				

Information against the indicators for the various market segments listed in Table 6.10 can be collected and updated on a regular basis, as a means of agreeing priority areas for action and setting targets for improvements in services. Note that information against all the indicators in the table should be obtained from well-designed consumer surveys. Annex 5 shows such a two-page consumer survey questionnaire that was field-tested in five towns in Uganda.

**Rationale for proposed service level indicators**

The rationale for the use of each consumer survey indicator in Table 6.10, in terms of benefits to consumers and the country as a whole, are as follows:

**Indicators 1 to 7** relate to service levels and are important for: assessing utility progress on service improvements; checking on value for money from investments; and for setting realistic targets. The emphasis is on actual use as reported by the consumers, rather than what was planned. Such indicators can also be used to prioritize new investments.

**Indicators 8 and 9** show the average number of hours and days of water supply and are important for verifying progress on utility performance in service provision.

**Indicator 10** shows the average time taken to collect all the household water each day from all sources, including travel and queuing time, and is an important investment outcome indicator. This is because if time savings are achieved, then there are clear opportunities for users to spend time on more productive activities that can be beneficial to a country's economy. Where there are high water collection times it suggests that there is a high demand for piped water.

**Indicator 11** illustrates the average distance to the nearest usable piped water source and is useful for prioritizing new investments on extending the pipe distribution network closer to consumers. It can also be used to assess utility progress on service improvements, to check on value for money from investments, and to set realistic targets.

**Indicators 12 and 13** concerning household expenditure on water and vendor prices provide support data for assessing people's ability and willingness to pay for improved services.

**Indicator 14** on levels of satisfaction with utility service it is important to assess the utility's operational performance. It is suggested that separate data is collected for both men and women, because women often have very different experiences from men in aspects such as the collection and carrying of water.

**Indicator 15** on functioning sanitation is useful for stakeholders concerned with planning for improved sanitation services in low-income areas.

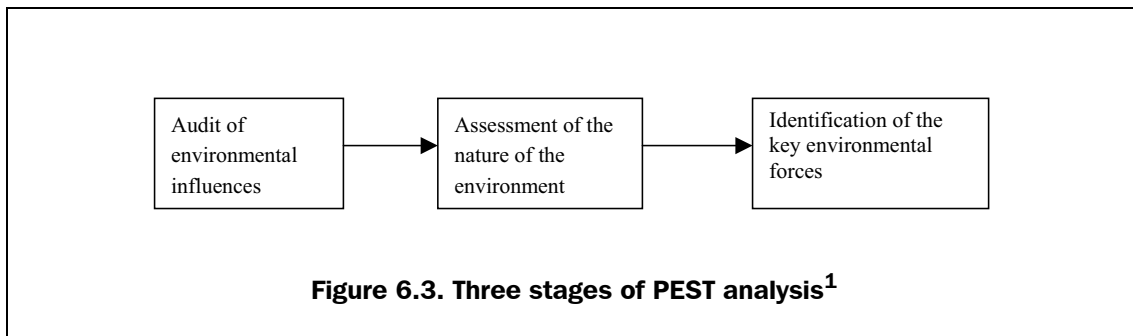
If such information is regularly collected using well-designed consumer surveys that are representative of each market segment or consumer group, it is very beneficial. It enables both the utility and the regulator/government department to undertake ongoing effective monitoring against targets and analysing trends. Each utility and regulator would need to review the list of indicators that are most appropriate for each city.

Such a list of indicators can also be used on an area or zonal basis, where appropriate. Using a manageable number of market segments as a means of presenting the data, however, retains a poverty focus and is clear to the reader. When utilities use these indicators and agree to work towards reasonable targets, the process can act as an incentive to serve all consumer groups.

**PEST analysis**

To understand the performance of any organization in serving its customers (and perhaps explaining why it is failing to serve so many prospective customers) it is necessary to understand not only the institutional context but also the wider national context. The simplified approach is to undertake what is known as a PEST analysis. This considers the key issues in the wider national, governance context or environment. Thinking through the broader Political, Economic, Social and Technical (PEST) factors or context within which a direct water provider has to operate is a useful exercise. In conventional marketing terms these factors can be considered in terms of the potential competitive threats and opportunities for the organization or sector concerned.

For the less competitive water sector, formulation of a marketing strategy is concerned with matching the capabilities of the organization with the expectations and demands of the wider socio-political environment. It is therefore necessary to carry out a periodic scanning of this environment in order to understand the extent to which it affects the strategy; and secondly the ways in which the environmental pressures can be related to the capabilities of the organization. Strategic management experts advocate a step-wise approach in analysing the environment, illustrated in Figure 6.3.



1. Source: Adapted from Wilson and Gilligan (1997)

Some typical PEST factors to consider are set out in Box 6.2

The technology aspects to consider are the willingness to accept both cheaper more appropriate technologies and different non-conventional service options. Hence the need to learn about different options from elsewhere and pilot promising approaches.

It is suggested that environmental scanning should be made part of the overall process of strategic planning, and should be integrated into the duties and responsibilities of the officer in charge of corporate planning. Environmental scanning may be done in-house by a specialist organizational unit, or through outsourcing. Environmental scanning can also be participatory, whereby, periodically, senior and middle managers give their perceptions of the environment. A strategic management consultant could facilitate the process.

**Subjective institutional performance descriptions**

Subjective institutional performance indicators or *critical success factors* are used to analyse 'softer' issues of management that cannot be predicted from numerical objective data available in the organization. One commonly used framework for institutional analysis in water and sanitation organizations is the 'WASH' approach (Cullivan et al., 1987). The 'WASH' framework solicits the perceptions of managers, employees and

**Box 6.2. Typical PEST factors to consider**

**Political/legal factors**

Legislative structure  
 Political/government stability  
 Taxation policies  
 Employment legislation  
 Foreign trade regulations  
 Environmental protection laws  
 Trade union power  
 Donor confidence

**Socio-cultural factors**

Demographics  
 Rural-Urban migrations  
 Lifestyles  
 Educational levels  
 Income levels  
 Attitude to work  
 Consumer power  
 Housing trends

**Economic factors**

GNP trends  
 Energy costs  
 Foreign exchange restrictions  
 Inflation rates  
 Investment levels  
 Money supply  
 Level of unemployment  
 Patterns of ownership

**Technological factors**

Speed of technology transfer  
 Level of communication and IT  
 Level of in-country manufacturing  
 Availability of local expertise

**Box 6.3. Categories for subjective performance descriptions<sup>1</sup>**

**Organizational autonomy**

**Legislative  
 framework**

**Management and  
 administration**

**Technical  
 capability**

**Leadership**

**Human resources  
 development**

**Commercial  
 orientation**

**Consumer  
 orientation**

**Organizational culture**

1. Source: Cullivan et al., (1989)

potentially the views of external stakeholders of items categorized in nine performance dimensions.

**Organizational autonomy** is critical in terms of an organization's ability to manage and respond to its customers' needs. Municipality water departments, for example, which are not able to hire staff or raise tariffs to meet their projected costs, have insufficient autonomy to manage effectively. Effective organizational autonomy can be categorized by the authority to make decisions about budgets, tariffs, revenues, hiring levels, pay and incentives, control of personnel, institutional policies and systems, planning of projects, and organizational goals. There are also regulatory functions that need to be performed by governments, such as setting and monitoring objectives and targets to balance the autonomy provided.

**Leadership** is the capability to inspire key stakeholders to develop and understand the institution's mission/objectives, to commit themselves to that mission and to work towards its fulfilment. Effective leaders/change agents serve as positive role models and are required at all levels of an organization. Leaders are essential for agreeing and implementing institutional change programmes. Over-reliance on one leader in development projects can be a problem, particularly if they are then transferred. It is generally better to have 'Core groups' plus a Steering Committee if the long process of change is to be sustainable.

**Effective management and administration** is demonstrated by the capacity to get the most out of the resources available (human and other) in a deliberate or planned manner. Good managers have a clear sense of objectives and priorities; they know who to rely on to get a job done and how to delegate to them the means to do it. An effective management climate is characterized by teamwork, co-operation and good communication among staff.

To enable managers to perform effectively an efficient administrative system is required. This includes the policies and procedures which regulate, guide and facilitate the actions of managers. A mature organization has effective sub-systems such as personnel, budgeting, accounting, financial management, procurement, contracting out and management information.

### **Commercial orientation**

Commercial orientation is the degree to which actions in an institution are driven by cost effectiveness and operating efficiency. The performance of an organization should be guided and disciplined by a strategy to achieve financial self-sufficiency at an appropriate stage of growth. This commercial orientation can be viewed at both operational and policy levels. At the policy level, commercially oriented institutions structure and stage investments, expenditures, and revenues to achieve financial equilibrium annually. At the operational level, everyday activities are guided by quality standards and by constant attention to cost factors.

The institution strives to establish a reputation as a financially well-run business in the eyes of its consumers (to promote the payment of tariffs), and in the financial and political community in order to obtain financial support for growth and to maximize financial and operating autonomy.

**Customer orientation** is organizing and directing the services and output of the organization towards the demands and desires of the customer. Staff of a successful water service provider organization see serving consumers as their primary function. All work, all programmes and projects are directed towards greater efficiency, effectiveness and equality of service to all consumers. Every effort is made to inform and educate customers about the role of the institution and the means it is using to achieve its (the customer's) objectives. Marketing of differentiated services to poorer communities can enable reliable service provision at affordable prices for these consumer groups.

**Technical capability** is the measure of the institution's competence in conducting the technical work required to carry out the responsibilities of the institution. Most of the technical work is performed directly by skilled, qualified employees, as well as outside specialists, supervised by the institution's own staff.

**Human resource development (HRD):** the investigation of this area includes an assessment of training needs based on organizational objectives and open staff appraisals, with a view to developing effective training or capacity development programmes. It is also necessary to examine the best means of managing and delivering the capacity development to meet those training needs.

Other key HRD areas are developing appropriate procedures for recruitment, dismissal and redundancy procedures, as well as providing more incentives for staff and partners in terms of aspects such as more responsibility and pay for good performance.

**Organizational culture** is the set of values and norms which inform and guide everyday actions, as part of the formal and informal work culture. An unhealthy organizational culture is likely to be highly resistant to change, protecting narrow interests (such as graft or petty bureaucratic authority). A more positive culture has a clear sense of mission and identity. In the public water sector, the institutional culture is often rather bureaucratic.

**Legal framework and interactions with external institutions** are the direct provider's capacity to influence positively and strategically those institutions which affect its financial, political and legal ability to perform effectively. An adequate legal and regulatory framework (both on the statute and in practice) is an enabling factor in this respect. The multiplicity of institutions in the water sector mean that positive interaction and the influencing of external institutions is generally a priority for a water institution's managers.

As an example of institutional appraisal, though restricted only to staff, managers in the National Water and Sewerage Corporation, Uganda, were asked to score their own institution according to these subjective performance descriptions, rating themselves on a scale from 1 (low or poor) to 3 (average) to 5 (high or excellent) (see Table 6.11). Started as part of a management development programme (Franceys, 1997)[, the process was continued by Mugisha (2000) to give an interesting longitudinal survey of managers' perceptions at a time of considerable institutional change in National Water.

The results show that whereas there was perceived to be a steady improvement in corporate performance indicators in terms of leadership skills, management and organization, and commercial orientation, respondents felt that there was little development in organizational culture or - most critically for a study on marketing - consumer orientation.

### **Swot analysis and assessment report**

A SWOT analysis (Strengths/Weaknesses/Opportunities/Threats) is perhaps the most common (and most misused) mechanism for structuring information to assist in a marketing analysis. An example of a SWOT framework, adapted to meet the particular needs of a water utility, is shown in the box below.

In order to enhance the practical usefulness of the SWOT analysis, the following points should be noted:

- Better to complete once much of the data gathering from institutional and infrastructure analyses and consumer surveys has been completed.

**Table 6.11. Subjective performance indicators for NWSC<sup>1</sup>**

	1993	1996	1997	1999	
	NWSC overall score			Kampala (10)	*NWSC (24)
Leadership	2.6	2.9	3.0	2.8	3.4
Organizational autonomy	3.0	3.7	3.5	3.3	3.5
Management and organization	2.4	2.9	3.0	2.8	3.1
Commercial orientation	2.7	2.9	3.1	2.8	3.3
Consumer orientation	2.5	2.4	3.1	3.0	3.0
Legal framework	2.8	3.0	3.5	3.4	3.4
Organizational and staff culture	2.6	2.8	3.4	2.7	2.9

1. Source: Mugisha (2000)  
 [1 = Poor, 3 = Medium, 5 = Excellent]  
 \*NWSC indicators for 1999 exclude Kampala Area

#### **Box 6.4. Examples of items to be assessed using a SWOT analysis<sup>1</sup>**

##### **Internal strengths and weaknesses**

Efficiency  
 Level of service  
 Assets  
 Buying  
 Employees (skills, morale, etc.)  
 Management  
 Level of technology  
 Information  
 Research and development  
 Utility finances

##### **External threats and opportunities**

Demands  
 Customer perceptions  
 Economic trends  
 Political trends  
 Environmental factors  
 Public health  
 Climatological  
 Suppliers  
 Contractors

1. Source: Adapted from Mugisha (2000)

- Keep it brief, and rank items to avoid trivia.
- SWOT statement must be 'hard' not 'soft'; objective not subjective; quantitative, not qualitative.
- Strengths and Weakness are relative to the competitor's situation.
- The SWOT analysis normally covers the whole business and not just one function.
- Use 'matching' within the SWOT to highlight strategic options.

Table 6.12 shows an example of a SWOT analysis drawn for NWSC, Uganda, in November 1999.

STAGE 1: 'WHERE ARE WE NOW'?

**Table 6.12. SWOT analysis of NWSC, Kampala<sup>1</sup>**

<b>Opportunities</b>	<b>Threats</b>
Abundant raw water sources	Raw water sources increasingly polluted
Limited political interference	Relatively poor clientele (low ability to pay)
Good and enabling water legislation	Corrupt operating environment
Relatively stable economy (low inflation rates)	Stringent environmental discharge laws have recently been introduced
More donor confidence than other utilities	Corporation tax recently introduced
Population increase, hence services expansion opportunities	Lack of in-country manufacturing of hardware inputs
Monopolistic status of NWSC	Low technological and innovative capacity
Economic liberalization allows PSP involvement	Political obligation to take on unviable towns without accompanying subsidies
Government preferential support for the water sector	Large external debt burden
Communication technology growing	
<b>Strengths</b>	<b>Weaknesses</b>
Knowledgeable and properly trained HR	Lack of adequate management skills
Good objectives-oriented planning	Tribalism and patronage
Willingness to change by senior management	High 'unaccounted for' water loss
Willingness to involve PSP where necessary	Reactive approach
Willingness to balance management/commercial/technical orientations	Inadequate performance measurement
Willingness and ability to curb corruption	De-motivated staff because of low pay
Better public image than other utilities	Corruption
Mindset to achieving corporation goals	Over-emphasis on technical orientation
	Imported technology
	Poor maintenance culture

1. Source: Adapted from Mugisha (2000)

A thorough SWOT analysis, along with data collected using the other means discussed in this chapter, provide a good basis for a answering the question 'Where are we now?'. The key information, analyses and initial ideas for potential solutions are best captured in a utility assessment report or similar output. This document will be very useful in the next phase of strategic marketing 'Where do we want to be?'.



