

Chapter 1

1



WaterAid/Jim Holmes

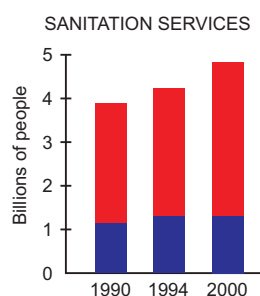
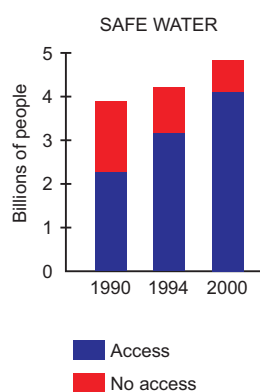
Introduction to water supply and sanitation projects

Every year, millions of the world's poorest people die from preventable diseases caused by inadequate water supply and sanitation (WS&S) services. Hundreds of millions more suffer from regular bouts of diarrhoea or parasitic worm infections that ruin their lives. Women and children are the main victims. Burdened by the need to carry water containers long distances every day, they must also endure the indignity, shame, and sickness that result from a lack of hygienic sanitation.

Impact on the poor

Over this decade the proportion of people in developing countries with access to safe water has improved.

Access to sanitation services has not.



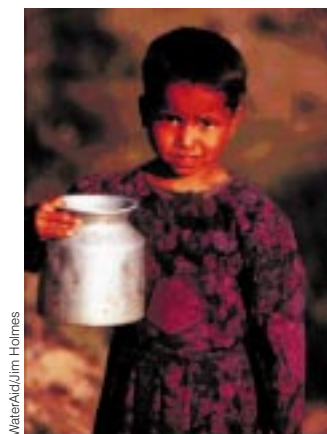
The impact of deficient water and sanitation services falls primarily on the poor. Unreached by public services, people in rural and peri-urban areas of developing countries make their own inadequate arrangements or pay excessively high prices to water vendors for meagre water supplies. Their poverty is aggravated and their productivity impaired, while their sickness puts severe strains on health services and hospitals.

Apart from the overwhelming social arguments, there are also powerful economic and environmental reasons for improving WS&S services for the poor. Human waste is a major polluter of rivers and groundwater resources. As water demand rises inexorably with social and economic progress, scarcity of water becomes a major consideration in development planning. Industrialization and food security may both be threatened, unless water resources are protected and conserved.

For all these reasons, improved WS&S services have been seen as a high priority need by the development community for more than 20 years. So why is the suffering and the squalor virtually unabated in so many countries? There are many reasons, and the problem is a complex one because solutions depend on a mix of political, social, technical, and institutional approaches, most of them involving changing established practices. An indication of the type of considerations that need to be taken into account can be gained from WELL's own Guiding Principles, set out in the box on the next page.

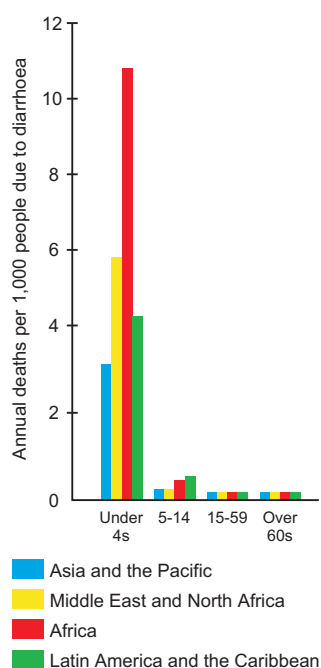
There is no standard blueprint for a sustainable and effective WS&S project. Each situation needs a co-ordinated approach by all of the stakeholders to ensure that the installation reflects the true demands of all sections of society. Discovering these demands can involve a lot of preparatory time and effort, which has not always been provided in the past.

Many committed professionals have been sharing experiences and developing common concepts and principles which can be used to guide the process of planning, implementing, and maintaining WS&S improvements. That collective expertise provides a basis for optimism that concerted efforts in the early years of the new millennium can make a major impact on the current depressing situation in so many countries.



WaterAid/Jim Holmes

Child deaths due to inadequate water and sanitation is a particular problem in Africa.



Bern et al., 1992

The WELL Guiding Principles

People matter more than science. Failures in environmental health in developing countries are usually human problems of conflicting interests, inadequate human resource development, or an inaccurate interpretation of the needs and priorities of various stakeholders. Whether or not technology and hygiene are promoted effectively has far more to do with specific institutional players and interest groups and their interaction than with medical or technical understanding. Despite lip service to gender awareness, all too often the perspectives and roles of women are ignored or undervalued. We need to understand demand for services from women, men, and children across all social groups before selecting suitable approaches and technologies.

Software and hardware must go hand in hand. Many public health engineering projects fail because the hardware has been provided but the means to sustain the intervention beyond construction have not been developed. An integrated approach is required to develop suitable infrastructure by integrating the social, health, technical, economic, financial, institutional, and environmental aspects and planning for sustainable management, operation, and maintenance. The many demands on the time of both female and male residents severely constrain what is sometimes naively viewed as the limitless potential of community management. We also know that efforts to improve hygiene are futile where the basic requirements of water, sanitation, or drainage cannot be met.

Both public and private aspects of environmental health count. Environmental health services often require both centralized resources (e.g. water treatment works, trunk sewers, landfills) and distributed resources (e.g. local public taps, house drains and street sewers, pit latrines, and street-level solid waste collection). In addition, both public and private environments play distinct roles in disease transmission. In times of structural adjustment, public authorities have learned that they cannot manage both central and distributed resources, and that there are benefits in devolving responsibility for the distributed resources to local communities. Such an approach can improve cost recovery and accountability to local residents, while reducing total cost.

Environmental infrastructure is about more than health. While improved health may be a project goal for infrastructural or environmental projects, it is not often a useful or complete indicator of success. On scores of occasions, water and sanitation projects have commissioned epidemiological or demographic evaluations of health benefits. Experience shows that, while fascinating for academic researchers, such studies are time-consuming, expensive, fraught with methodological defects, and frequently produce misleading or ambiguous results. Moreover, they do not help to diagnose the weaknesses of a project, or suggest ways in which its impact may be strengthened. Operational evaluations of facility functioning and consumer use, combined with studies of hygiene behaviour, are far more useful. Such studies can also illustrate other benefits of water and sanitation that are valued highly by the users, such as saved time, convenience, cost, and dignity, which are all too lightly dismissed in a narrow medical framework.

Community WS&S in practice

A typical community water supply and sanitation project in most developing countries will have both 'hardware' and 'software' components.

The water supply system may be:

- a handpump raising groundwater from a borehole or dug well;
- a standpost and tap connected to a pipe system (which may be supplied by motorized pumping or by gravity, from a borehole, stream, reservoir, or spring source, with or without any water treatment); systems may consist of only a few standposts in a village, or may be part of a larger regional or city-wide system; or
- a water butt supplied by rainwater from a roof catchment.

A number of families share each handpump or standpost (water-point), and family members (usually women and children) both collect water from it and often wash clothes or dishes there.

Improved levels of service are provided by increasing the number of water-points, so reducing the time and distance to collect water. Most convenient is the yard connection, where each family has a standpost on its own housing plot, or the house connection, where water is supplied into the house at a pressure which operates several taps in the bathroom and kitchen.

Safe excreta disposal for poor people usually involves the use of a family latrine, which the family themselves keep clean. The latrine will use one of many various designs of pit, slab, and superstructure, and may also include a lid, vent pipe, or water seal to control flies and odour.

The 'software' components will include such things as hygiene promotion and the training of operatives, water committees, and caretakers.



WaterAid/Jim Holmes

Household water supply
and sanitation services

Integrated water resources
management strategies

1.1 Definitions and scope of the *Guidance Manual*

The principles and practices set out in this manual apply to DFID programmes and projects for improving access to *household* water supply and sanitation services in developing countries.

Water supplies for agriculture, industry, power generation, ecosystem protection, navigation, etc., involve different considerations which are beyond the scope of these guidelines. There are, however, evident and important links between domestic WS&S and the management of water resources as a whole. Though water for domestic use accounts for only about five per cent of water consumption, it is a proportion that must be safeguarded in both quality and quantity as a basic human need. At the same time, poor sanitation practices are the major cause of surface and groundwater pollution.

It is for these reasons that WS&S programmes need to be part of integrated water resources management (IWRM) strategies in developing countries. For the purposes of this manual, the discussion is limited to the direct links between WS&S and IWRM, such as water allocation and pricing policies; regulatory and legislative issues in water conservation and pollution control; and the common capacity-building needs of local institutions. For the broader IWRM

Wider issues of basic infrastructure for poor people have been reviewed in an Occasional Paper (DFID, 1998).



WEDC/John Pickford

Participation and partnership

¹ These abbreviations have been assigned only for the purposes of this manual, as use of the marginal icons helps to identify the relevance of particular sections later in the manual

issues such as water resources assessment, river basin management, and agricultural/industrial water use, readers are referred to other information sources (e.g. EC, 1998).

These guidelines cover both rural and urban WS&S projects, but with the emphasis on meeting the basic needs of the unserved or ill-served poor in rural and peri-urban areas, inner city informal settlements and slums, and small towns.

In terms of **water supply**, those basic needs include access to a safe supply of water for domestic use, meaning water for drinking, food preparation, bathing, laundry, dishwashing, and cleaning. In many cases, domestic water may also be used for watering animals and vegetable plots or gardens. Definitions of 'access' (distance to the nearest water-point and per capita availability) and 'safe' (water quality) may vary from country to country.

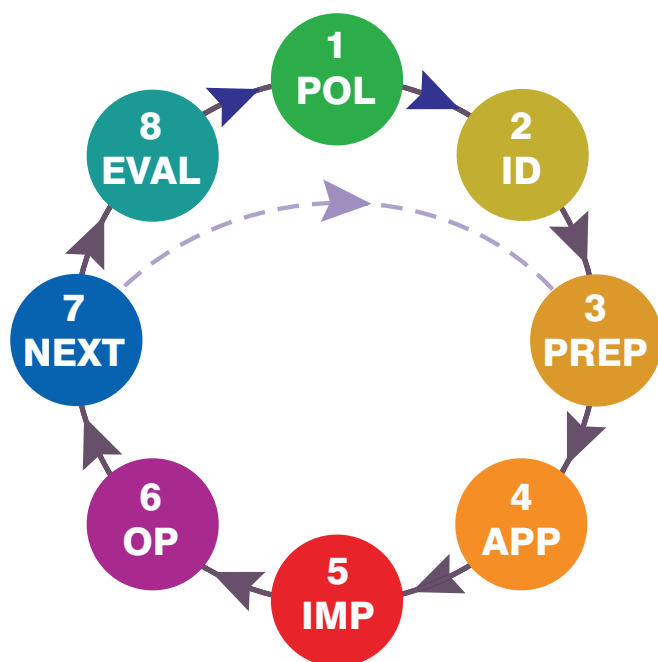
There are many possible definitions of **sanitation**. For the purposes of this manual, the word 'sanitation' alone is taken to mean the safe management of human excreta. It therefore includes both the 'hardware' (e.g. latrines and sewers) and the 'software' (regulation, hygiene promotion) needed to reduce faecal-oral disease transmission. It encompasses too the re-use and ultimate disposal of human excreta. The term **environmental sanitation** is used to cover the wider concept of controlling all the factors in the physical environment which may have deleterious impacts on human health and well-being. In developing countries, it normally includes drainage, solid waste management, and vector control, in addition to the activities covered by the definition of sanitation.

The poverty-eradication goal of DFID established the focus of the *Guidance Manual*. The target groups for DFID co-operation are rural communities and poor people living in peri-urban areas, inner-city slums, and small towns. To support them in their own efforts to improve WS&S services, the approach has to be participatory and to be based on partnerships which involve a wide range of stakeholders.

The **primary stakeholders** in WS&S projects are the intended users of improved facilities — the householders in target communities. It is worth noting right at the start that the partnership approach needs to involve all sections of the community. Exclusion of groups on the basis of gender, ethnicity, income level, or for socio-cultural reasons leads to unsatisfactory projects which will usually prove unsustainable in the long term.

Secondary stakeholders, in addition to governments and donors, will typically include local NGOs, private sector entrepreneurs, local government and water utilities, river management boards, consumer groups, clergy, and schoolteachers.

The guidance in this manual covers the full programme and project cycle, which is in eight distinct stages¹:



- POL Policy development, sector planning, and programme formulation
- ID Programme and project identification
- PREP Programme and project preparation
- APP Programme and project appraisal and approval
- IMP Implementation and monitoring
- OP Operation and monitoring
- NEXT Extensions or Next phase programme and project identification
- EVAL Evaluation



SCF/Alan Nicol

1.2 Why WS&S matters

Water is a precious resource and vital for life. Without it we would die within days. Access to a safe and affordable supply of drinking water is universally recognized as a basic human need for the present generation and a pre-condition for the development and care of the next. Water is also a fundamental economic resource on which people's livelihoods depend. In addition to domestic water use, households use water for productive activities such as farming and livestock rearing in rural areas, or horticulture and home-based micro-enterprises in urban settlements.

Water shortage, poor quality water, or unreliable supply have profound effects on people's well-being. Providing safe water alone is not enough, however, as water can quickly become unsafe, and the faecal-oral transmission of diseases can occur in other ways. If people do not have adequate and appropriate sanitation facilities or the chance to develop good hygiene practices, diseases can be spread through the contamination of water or through other pathways in the home environment. At any one time around half of all people in developing countries are suffering from one or more of the six main diseases associated with inadequate water supply and sanitation: diarrhoea, ascariis, dracunculiasis, hookworm, schistosomiasis, and trachoma.

Assessing health impacts

Improving the health of the poor is a frequently cited goal of water and sanitation projects. The relationship is difficult to establish in practice at the project level, but over the longer term it can be demonstrated that there are significant health-associated benefits from improvements in water supply and sanitation provision, particularly when these are associated with changes in hygiene behaviour. The Water and Sanitation for Health programme (Esrey et al., 1990) found

Water is an economic
and a social good.



WaterAid/Jim Holmes

that in the 144 epidemiological studies that it had reviewed, the health impact of improved water supply and sanitation facilities was high, measured by significant reductions in morbidity rates (sickness) and higher child survival rates (see also Section 2.3).

The links between water use (and misuse), health impacts, and environmental degradation are influenced not only by poverty but also by affluence. Industrial development, economic growth, and improvements in living standards lead to greater use, abuse, and degradation of water quality, while water scarcity does not affect all groups in society equally.

The White Paper on International Development treats water as both an economic and a social good in the context of the goals of sustainable development. The benefits of safe water supply and sanitation provision go beyond improvements to health, well-being, and quality of life. Access to convenient and affordable water can save people's time and energy and enhance their livelihood opportunities.

Improvements in sanitation will improve privacy and retain human dignity — significant and legitimate social development concerns. These less quantifiable benefits are among the advantages of water supply and sanitation most often reported by people in low-income communities.

1.2.1 Impacts on the poor and powerless

In rural areas poor people have to work hard for their water, often fetching it from far-off sources and using it carefully and sparsely. The time spent collecting water is a double burden, as it means less time is available for the productive activities on which subsistence economies depend. In cities, the urban poor suffer the indignities of inadequate sanitation and frequently have to purchase water from private vendors. Research in slum and squatter settlements in Jakarta showed that less than a quarter of the city's population have direct connections to a piped water system and 30 per cent depend solely on purchasing water from vendors (Jarman, 1997). In Lima, Peru, a poor family paid a vendor 21 times as much for water as a middle-class family with a household connection paid for their water (Briscoe, 1986). Poor households can spend up to 40 per cent of their total income on water (UNICEF, 1995).

Poor slums and informal settlements are commonly found on low-lying, flood-prone, or low-infiltration-capacity land with a high water table, leading to poor drainage and sanitation problems. Many poor people rely for bathing, laundering, and defecation on drainage channels, canals, and rivers which become clogged by garbage and flood when solid waste management is inadequate. Research in São Paulo, Brazil showed that only two per cent of slum dwellers have any form of sanitation (Hardoy et al., 1990). Improved access to natural sources of water or a piped water supply, along with appropriate and affordable sanitation, are essential ingredients in facilitating the social and economic development of poor rural and urban communities.

Children are the most vulnerable.



WaterAid/Caroline Penn



DFID/Dilshad Sheikh

Although improvements to water supply and sanitation are important for everybody, children are the most vulnerable to the preventable diseases which result from lack of water, dirty water, and lack of sanitation. Over three million children die every year from diarrhoeal disease and dehydration, and over half experience more than fifteen attacks of serious diarrhoea before the age of five (Bern et al., 1992). A lack of water also means that children cannot wash often enough and so suffer from eye infections and skin diseases such as scabies. Another extreme example of how a lack of water can affect children comes from Huzi village in Tanzania. A mother there explained that in the dry season she shuts her children in the house during the hottest time of day because if they play outside they sweat too much and she does not have enough water for them to drink to replace the loss of body fluid (WaterAid, 1996a).

There is also an important gender dimension. Improved water supply and sanitation provides particular benefits for women and girls. Not only do they do the bulk of the carrying of water, but they often suffer harassment on the way to and from community defecation areas and water sources. School sanitation facilities have a major effect on the enrolment and attendance of teenage girls. Also, with their responsibilities for family health, women are often the strongest advocates in the community for change and improved facilities.

Improved water supply and sanitation can lead to significant and tangible improvements in the way of life of many thousands of poor people, and since the beginning of the International Drinking Water Supply and Sanitation Decade considerable resources have been channelled into water supply and, to a lesser degree, sanitation. Unfortunately, however, not all people have benefited.

Poverty reduction through improved WS&S

Poverty reduction through improved water supply and sanitation can be achieved in a number of ways, for example by:

- using enabling strategies such as promoting inclusive policy dialogues and pro-poor policy frameworks;
- addressing inequities by using city-wide approaches; and
- directing activities at areas where poor people live or are particularly affected by lack of safe and adequate water supply and sanitation.

User participation throughout the project cycle

Whatever the means, good practice in water supply and sanitation provision involves the active participation of communities or their representatives in planning, construction, operation, and maintenance. Insufficient attention has been paid in the past to providing economic and other support to users in low-income communities and to their involvement in activities which will ensure long-term and sustainable services and supply.

1.3 Historical development of the WS&S sector

Water supply and sanitation rose up the development agenda more than 20 years ago. The 1977 UN Water Conference in Mar del Plata, Argentina, recommended that the 1980s should be proclaimed the *International Drinking Water Supply and Sanitation Decade* (IDWSSD). In preparation for the launch of the Decade, the World Bank and the World Health Organization (WHO) carried out rapid assessments of the WS&S sectors in more than 100 developing countries. These, together with WHO's five-yearly monitoring of WS&S coverage, provided the baseline statistics against which progress in the sector is generally measured.

The picture was a depressing one: 1.2 billion people out of a total Third World population of 2.2 billion (China was not included in the statistics at that time) were without access to safe drinking water; 1.7 billion had no proper means of excreta disposal. As a result, an estimated 10 million people a year were dying from diseases directly related to poor sanitation and half of the world's hospital beds were occupied by patients suffering from water-related illnesses.

1.3.1 Ambitious targets for the 1980s

The IDWSSD (1981-1990) was launched at the UN General Assembly in November 1980, with all countries adopting the declared target of achieving 100 per cent coverage in water supply and sanitation by 1990. To reach the targets would have meant doubling the rate at which new water supply services were then being provided, and more than quadrupling the provision of sanitation/sewerage facilities. Sector investments by governments and donors would have to rise threefold.



DFID/Howard J Davies

The launch of the Decade gave WS&S a publicity boost and led to concerted efforts to speed up progress. The economic climate of the 1980s, however, was not conducive to massively increased funding, and anyway most sector institutions in developing countries did not have the absorptive capacity to cope with the type of programmes needed to come close to the 100 per cent coverage goals. Provision of improved water and sanitation services did speed up in comparison with previous years, though in the case of sanitation, it still could not even keep pace with rising population, so the number of people unserved continued to rise.

1.3.2 Consensus on the way forward

A major gain from the IDWSSD was the spur it gave to global co-operation in the sector. Regular consultations and workshops encouraged sector professionals to share experiences and knowledge. This in turn led to a growing consensus on both the causes of past failures and the concepts and approaches which offered the best prospects for future success. When the Decade came to an end with a Global Consultation in New Delhi, India, in September 1990, the 600 WS&S specialists who gathered there were able to agree on guiding principles for accelerated progress. The New Delhi Statement,

captioned ‘Some for all rather than more for some’ drew together the experiences of the Decade and updated the Mar del Plata concepts to take account of the challenges of the 1990s.

1.3.3 The sanitation challenge

² The most recent figures from the WHO/UNICEF Joint Monitoring Programme were published in 1996 and based on the situation at the end of 1994. They showed an estimated 2.9 billion people lacking adequate sanitation and 1.2 billion without access to safe water. By the year 2000 the number without sanitation was predicted to reach 3,300 million, approaching 70 per cent of the population of the developing world.

The challenges remain huge, and they continue to grow. This is particularly true in respect of sanitation. WHO now estimates that more than 3 billion people are without adequate means of excreta disposal.² The impact on the health, dignity, and quality of life of the poor is shaming. Squalid surroundings and continuous health hazards exacerbate the effects of poverty, particularly in the overcrowded slums which surround all Third World cities. According to WHO, 3.3 million people die every year from diarrhoeal diseases and at any one time there are 1.5 million suffering from parasitic worm infections stemming from human excreta and solid wastes in the environment.

Increasingly it is recognized that neglect of WS&S services for the poor affects all segments of society. On top of the costs of healthcare and lost productivity, the contamination of rivers and aquifers by untreated human waste hinders industrial progress, slows economic growth, and deters tourism. The 1991 cholera epidemic cost Peru an estimated one billion dollars in lost tourism and exports. That same amount would have more than paid for all the water and sanitation systems Peru needed to prevent such an outbreak from occurring.

1.3.4 Improvements have to be maintained

The dismal situation created by inadequate access to WS&S services is aggravated still further by large numbers of broken down or malfunctioning water and sanitation services. The health benefits of an improved water supply can be destroyed overnight if people are forced to revert to contaminated sources when the public supply fails. Capital investment in new services is wasted unless there is adequate provision for the reliable operation and maintenance of installed facilities.

1.3.5 Signs of hope

The scale of the problems should not be underestimated, but the picture is not entirely bleak. Developments in the later years of the 1980s and the early 1990s offer hope that damaging trends can be reversed. During the IDWSSD, the development and demonstration of low-cost water and sanitation technologies was a key strategy for matching costs with affordability. The 1980s saw real progress in the development of technologies and approaches for improving WS&S services for low-income communities. Technological innovation continues to be important in facing new challenges in urban sanitation, waste management, and water conservation, where conventional technologies are often unaffordable.

The 1980s showed too that properly motivated communities are ready and able to devote considerable financial, material, and human resources to water supply improvements which meet their own



WaterAid/Jim Holmes

Rehabilitation can be an economic way of deferring investment in new facilities.

The Dublin Principles are the basis of an international consensus on development in the water sector.

aspirations and needs. It is also becoming apparent that, under the right circumstances, the same motivation can be stimulated for accompanying water improvements with better hygiene behaviour and the construction of improved sanitation systems.

The legacy of disused and defective WS&S systems contains important lessons too. Rehabilitating an old system can be an economic way of deferring investment in new facilities, but only if it is accompanied by the correction of previous operation and maintenance shortcomings. It follows that remedial programmes must be accompanied by full analysis of the reasons for past failure and by planning, design, and implementation procedures which take account of operation and maintenance needs.

1.4 Evolution of guiding principles

1.4.1 The Dublin Principles

As part of the preparations for the 1992 UN Conference on Environment and Development (The Earth Summit) in Rio de Janeiro, Brazil, an International Conference on Water and the Environment was convened in Dublin, Ireland, in January 1992. The resulting Dublin Statement and its accompanying four Guiding Principles have remained the common basis for policy dialogues among donors and partner governments, not just in the WS&S sector but in the wider field of water resources development, management, and conservation. The four 'Dublin Principles' are quoted in full in the box on page 11. The Conference Report (Dublin, 1992) also includes a 40-page Action Agenda.

In June 1992 in Rio, world leaders endorsed *Agenda 21*. This blueprint for sustainable development in the 21st Century contains 42 'chapters' setting development priorities under different headings. Chapter 18 of Agenda 21 is entitled 'Protection of the Quality and Supply of Freshwater Resources'. The Dublin Principles are at the heart of Chapter 18, and its negotiated text continues to be the basis of global discussions on progress in all water resources areas.

Since Rio, a series of international meetings (most notably Noordwijk 1994, Harare 1998, and Paris 1998) have assessed the progress of Agenda 21 and tried to put into operation its recommendations.

The UN mechanism for monitoring the implementation of all aspects of Agenda 21 is the Commission on Sustainable Development, which holds annual sessions in New York (CSD1, CSD2, etc., the name relating to the number of years after Rio). The Noordwijk recommendations were a basis for discussions on Chapter 18 at CSD2, and the Harare and Paris meetings fed into CSD6, held in New York in April 1998.

The CSD6 final text re-emphasizes the need for urgent government actions to enable the unserved poor to gain access to basic water and sanitation services. The recommendations reinforce the need for participatory approaches, gender sensitivity, and the integration of

The Dublin Principles

1. Freshwater is a finite and vulnerable resource, essential to sustain life, development, and the environment

Since water sustains life, effective management of water resources demands a holistic approach, linking social and economic development with protection of natural ecosystems. Effective management links land and water uses across the whole of a catchment area or aquifer.

2. Water development and management should be based on a participatory approach, involving users, planners, and policy-makers at all levels

The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of the users in the planning and implementation of projects.

3. Women play a central part in the provision, management, and safeguarding of water

The pivotal role of women as providers and users of water and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources. Acceptance and implementation of this principle requires positive policies to address women's specific needs and to equip and empower women to participate at all levels in water resources programmes, including decision-making and implementation, in ways defined by them.

4. Water has an economic value in all its competing uses and should be recognized as an economic good

Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources.

The Dublin Statement, January 1992

WS&S issues are raised on a wide range of international platforms.

water projects into national water strategies. Specific recommendations from the Harare meeting are quoted in Chapter 2.

Other global meetings, while not directly concerned with water, have had a significant influence on WS&S sector programmes and targets. They include: the World Summit for Children (UNICEF) which gave a high priority to achieving universal WS&S coverage as soon as possible; the 1996 Habitat II Conference in Istanbul, Turkey, where provision of basic WS&S services for the urban poor was highlighted as a priority need; the 1995 Beijing Conference on Women, at which the demand for greater influence of women in decision-making roles was seen as especially important in the WS&S context; the Global Conference on the Sustainable Development of Small Island Developing States in 1994, which highlighted the vulnerability of the small islands and the need to develop basic WS&S services as part of an integrated water resources plan; and the World Food Summit in

1996, for which the plan of action stresses the role of water in food security and poverty alleviation. The UK Government subscribes to each of these Conference recommendations.

1.4.2 Global co-operation

A key development during the 1980s was the fostering of inter-agency collaboration. One outcome was the formation of the Water Supply and Sanitation Collaborative Council (WSSCC), which holds global meetings attended by a wide range of participants, the majority of whom are from developing countries. Although not a policymaking body, the Council generates outputs through working groups and networking and is becoming increasingly involved in global advocacy for the sector. DFID (then ODA) was a founder member of the Council and has continued to play an active role in its activities.

The World Water Council (WWC) was constituted in 1996 to cover policy issues in the broad field of water resources management. Its subscribing members include public and private sector agencies along with UN agencies and donors. The WWC is currently spearheading the preparation of a *Vision for Water, Life, and the Environment* with four components, including one on water supply and sanitation.

The Global Water Partnership (GWP) was also formed in 1996 with the aim of facilitating improved implementation of programmes in the water resources field. It has been looking at gaps in sector knowledge and capacity-building needs in the different sectors.

Concerted action on sanitation by WSSCC and GWP



WaterAid/Jim Holmes

Two recent initiatives by the WSSCC and the GWP are of particular relevance to WS&S sector planning. The WSSCC is co-ordinating a *Global Environmental Sanitation Initiative*, aimed at enabling stakeholders to share information about ongoing sanitation programmes and to develop common advocacy materials to raise the profile of sanitation with decision-makers. The GWP is putting together a programme on *Urban Environmental Sanitation* to address technological and capacity-building needs in this critical area.

Some multilateral institutions have a primary interest and a strong mandate in the WS&S sector. The objectives of their WS&S programmes are as follows (taken from the UN Secretary-General's Report to CSD6 — see the Appendices for a list of acronyms):

- Co-operation and Co-ordination Mechanisms in Water Supply and Sanitation: Habitat, UNICEF, and UNDP
- Interagency Steering Committee on Water Supply and Sanitation: DESA, FAO, IAEA, World Bank, INSTRAW, Habitat, UNICEF, UNDP, ECA, ESCAP, ECE, ECLAC, ESCWA, UNESCO, UNEP, UNHCR, UNIDO, UNU, WHO, and WMO
- Joint Activities towards Universal Access to Water Supply and Sanitation in Asia and the Pacific: DESA, World Bank, INSTRAW, UNICEF, UNDP, ESCAP, and WHO

Many multilateral agencies are actively involved in WS&S

- Joint Initiative on Participatory Methods for Hygiene Behaviour Change and Sanitation: World Bank, UNICEF, UNDP, and WHO
- Joint Initiative on Prevention and Control of Water-Related Diseases in Europe: ECE, UNEP, and WHO
- Joint Monitoring Programme (JMP), for Water Supply and Sanitation: UNICEF and WHO
- Memorandum of Understanding on Water and Environmental Sanitation: World Bank and UNICEF
- Promotion of Sustainable Water Supply and Sanitation Programme: World Bank, UNDP, and WHO
- Water Supply and Sanitation Programme: World Bank and UNDP
- Water Supply and Sanitation Programme in Rural Areas: DESA, UNDP, and UNCDF (United Nations Capital Development Fund)
- Water Working Group of the System-Wide Special Initiative on Africa: DESA, FAO, IAEA, World Bank, Habitat, UNICEF, UNDP, ECA, UNESCO, UNEP, UNIDO, WHO, and WMO.

All these major actors and the donor community as a whole have agreed to operate with a set of common guiding principles which are the basis of sustainable progress in the delivery of improved WS&S services to the unserved and under-served poor. The key elements of those principles are summarized in Section 2.1 of this manual.

1.5 Organization of the WS&S sector

It is important to have a clear understanding of the institutional arrangements for sector planning.

In the development of projects and programmes, it is obviously important to have a clear understanding of the institutional arrangements for sector planning. Larger countries, for example India and Pakistan, may have a state government structure operating below the federal level. This structure affects both the way in which overall financial and human resources are allocated to sector programmes, and also the mechanisms through which programmes and projects are planned, implemented, and managed.

Matters are frequently made more complex by the large number of institutions with a stake in different aspects of the WS&S sector in most countries. This situation arises partly because old institutions are rarely dispensed with at the same rate that new ones are created. Historically too, responsibility for rural water and sanitation often rested with health ministries, while urban WS&S was divided among city administrations and central water ministries. Other aspects of water resources management are sometimes the responsibility of dedicated water ministries, or may come under the ambit of an agriculture, energy, or industry department. This makes the job of developing integrated programmes particularly difficult.

1
Increased commercialization and private sector participation

Utilities have paid little attention to the poor, to sanitation, and to small towns and rural areas.

It has been fashionable over the last decade or more to create semi-autonomous public bodies such as water utilities as a means of increasing private sector participation. The arguments underlying this are well known, and relate to effectiveness, efficiency, and distancing service/infrastructure providers from what has been perceived as undue political influence or budgetary restraints. While there are clear benefits to this approach, an important side effect has been the removal of powers from local government, particularly in the urban sector. This is not automatically to the general good, as in practice it distances service providers from direct accountability to both the local political system and its consumers.

To date, utilities tend to exist only in large urban centres, and focus primarily on water supply to middle- and high-income consumers, with relatively little attention to the urban poor, who may as a result be further marginalized. Also, they are much less successful in dealing with and applying commercial principles to urban sanitation. In small urban centres, it is mainly urban local governments which will retain responsibility, and policy has to be directed at improving performance within the context of their operational constraints; it is not an ideal world.

Planning ahead for O&M in Cuttack

DFID is funding an urban services improvement programme focused on the urban poor in the Indian city of Cuttack. This includes improvements to water supply and sanitation. Project preparation studies and previous experience from DFID urban projects elsewhere in India indicated that operation and maintenance of the assets created would be problematic, and that it was essential to bring O&M to the fore. Common problems include:

- Inadequate information and accounting systems make actual performance assessment difficult.
- O&M work programmes are not based on actual needs.
- A lack of transparency in the subsidies being directed at the operation of a small sewerage scheme which benefits the better-off residents; this has a distorting effect because cost-recovery proposals for the urban poor are very hard to justify unless these hidden sewerage subsidies for the better off can be dealt with.
- The set levels of cost recovery do not allow for adequate expenditure on O&M.

The crucial point is that despite these weaknesses, the programme goes ahead. The ideal policy and institutional environments exist only in theory. The key issue is to identify the problems during project identification and preparation and ensure that they are being addressed in the Project Memorandum and Framework, as is the case in Cuttack.

This is currently being addressed as part of the main programme; a study is underway to carry out a situation analysis and produce a phased development plan for improving O&M over the lifetime of the project. Both institutional performance and community perceptions of O&M are being investigated.

By the end of the project, actions will have been taken in conjunction with the local project partners both at the city and state levels to improve the performance of O&M. This will take at least five years to achieve.

Nevertheless, such situations offer important opportunities and challenges for well-focused technical co-operation and investment in the sector; careful problem analysis is required to ensure that the project purpose and goal can be met, as the Cuttack experience shows (see box left).

Other generic problems can arise where WS&S is handled by different ministries and departments of local government and where rural and urban responsibilities are different. The institution responsible for post construction management, operation, and maintenance of the service is often different from the one that planned and implemented it, and is relatively poorly resourced. There is therefore a potential problem with the sustainability of the service, which has to be anticipated and overcome in the project development phase. In the same way, communities which have not been involved in design and planning are likely to have a low level of ownership and therefore they should be brought in at these earlier stages and not just for O&M.

The existence of different tiers of planning authority vested in the federal, state, and local government systems creates difficulties with regard to norms and standards used in planning. There may also be various commissions and standing bodies of government who have developed planning norms relating to matters such as per capita water supply, public and private connections, sanitary guidelines, etc. This raises two important issues:

Planning should be demand responsive, based on user choice from locally appropriate levels of service.

The planning mechanism needs to be *demand responsive*. This means locally appropriate *levels of service* rather than the adoption of universal norms and standards on an *a priori* basis. It is not helpful to apply general classifications such as *rural*, *middle-income*, and the like. Levels of service should not be fixed in this manner, but be linked to the issues of *demand*, commonly expressed through user willingness-to-pay for a particular level of service, rather than just need (see Section 2.5 on the demand-responsive approach).

There is a strong case for standardization in relation to the choice of technology.

Engineering design standards relating to detailed technical design, use of materials, and construction practice are often based on local codes of practice, or in some cases national standards, and are used routinely by local engineers. Some such standards may be inappropriate, but it can be very difficult in practice to convince people to go for wholesale change within the context of a development assistance project. This is more of a problem than levels of service, where there is usually more scope to move away from the concept of planning norms. However, there may be scope for innovation through developing standard details which are appropriate for the project or programme but which are based on locally agreed standards. Also, there is a strong case for *standardization* in relation to the choice of technology, where this can simplify operation and maintenance by limiting the range of spare parts and technical expertise which need to be available. This is discussed in more detail in Section 2.7.



WEDC/Darren Sawell



WEDC/Rod Shaw

1.5.1 The nature of urban WS&S

Urban water supply, and in some circumstances urban sanitation, functions through a hierarchy of distribution (or collection) systems known as primary and secondary networks. These feed the neighbourhood-level tertiary distribution systems which are the mechanisms of service delivery. The crucially important implication of this is that the ability to deliver a particular level of service to the consumer is dependent upon the capacity of the larger secondary/primary network. Thus, in order to target improvements to the urban poor, it may be necessary to augment the city supply system, which will also benefit those outside the direct target group. Failure to appreciate and act on this can result in yet more taps with no water coming out of them. The concept and context of 'management at the lowest appropriate level' requires careful interpretation; the 'unbundling' of responsibilities can lead to piecemeal, unco-ordinated approaches.

A related issue is the extent to which it is either possible or desirable to decentralize city-wide infrastructure systems on a zonal basis. For water supply, this is related to the nature of the water resources. Groundwater in principle can be developed and supplied on a scale ranging from city-wide down to individual on-plot wells. For example, one-third of the population of Calcutta is served by street corner handpumps on tubewells. This has greatly improved access to water for the city's poorest, many of whom had previously had no choice but to use cholera-infested canals. If sewerage is the means of sanitation, it is again possible to envisage local collection and treatment rather than single, centralized facilities. The guiding factor is one of institutional capacity and capability to operate and maintain, rather than one of technical feasibility.

Harnessing community action

It is ironic that many urban poor people may be located quite close to existing service lines, but the informal and unplanned nature of the settlements frequently precludes access to services. Individuals and community groups develop coping strategies to deal with the lack of formal service provision; these are not always in a form which is recognized in the conventional planning sense. The challenge is to harness these actions through microplanning at the community level and, most importantly, to look for ways in which these plans can interact with city-level development plans.

There is a wide range of technical and management options available for planning and procuring urban infrastructure. In particular, the development of local solutions including on-site and on-plot technologies can offer both affordable and sustainable long-term solutions. For example, on-plot latrines should not necessarily be regarded as a short-term solution which is conditional on a longer term plan which includes upgrading to a sewered system.

There is good evidence to support the active role which urban poor communities can take in infrastructure procurement, for example by using community contracting. This brings in additional benefits of income generation and enterprise development.

The Strategic Sanitation Approach to affordable services for the urban poor

Unbundling is a way of dividing investments and service provision into more realistic and manageable components. These separate components can be relatively independent or linked so that performance of one is dependent on that of others.

Horizontal unbundling refers to the way in which services in different areas are provided by different organizations and/or in different ways.

Vertical unbundling refers to the way in which services at different levels in a hierarchical system are provided by different suppliers, e.g. dividing water supply into bulk supply and water distribution.

Unbundling should be undertaken with caution because it generally requires good capacity and the overall co-ordination of the various components. Rebundling may be appropriate in some cases.

The UNDP World Bank Water & Sanitation Programme has developed a theoretical basis for approaching urban sanitation problems, known as the Strategic Sanitation Approach or SSA. This approach emerged as a response to the perceived failure of the large, supply-driven investment programmes of recent decades. In particular, its underlying principles are that sanitation investments should be demand-based in operational terms, and the institutional arrangements need to be incentive-driven. The operational implications of SSA include:

- providing technical support at the community level;
- widening the technological options;
- assessing sanitation demand;
- unbundling sanitation investments to permit incremental improvements at affordable costs; and
- financing and cost recovery.

The unbundling of investments can happen in two ways.

Horizontal unbundling, in which services are subdivided geographically. In large urban areas, this form of decentralization can be based on 'command areas' in relation to natural drainage patterns. It also provides opportunities for creating competition in managing the services.

Vertical unbundling, in which programmes are divided according to the scale and cost of components, for example at the trunk, secondary, and neighbourhood levels.

Care is needed to avoid unco-ordinated and wasted resource inputs.

Incentives are required to stimulate the required behaviours from key actors. SSA suggests the development tools which can be used to create the appropriate enabling institutional environment, which must have:

- rules governing interactions within and between enterprises;
- referees who monitor and enforce compliance; and
- rewards and sanctions in relation to compliance.

The crucial component in putting these concepts into operation is that there needs to be clearly defined responsibility and capacity for overall planning at the town or city level.

At the time of writing, DFID Engineering Division's research programme is currently funding work in conjunction with the UNDP/World Bank W&S Programme in South Asia. The output from this work will be operational guidelines for SSA, available in 1999.

A.M. Wright, 'Towards a Strategic Sanitation Approach', UNDP/World Bank Water & Sanitation Programme 1997, the World Bank, Washington DC

1.5.2 The nature of rural WS&S

In rural areas the outreach of central government agencies is often very limited, and based at best on rural district centres which may be physically remote from communities in need. The situation is aggravated by differing institutional responsibilities, for example for water, sanitation, and health. Mobilizing programme support can be



WaterAid/Jim Holmes

The VLOM Approach reflects the importance of maintenance for sustainable rural WS&S.



WEDC/Darren Saywell

The challenge is to make the components work together coherently.

problematic in terms of local institutional commitment, and staff are frequently reluctant to spend time at remote locations and work under very difficult conditions. The whole issue of managerial and logistical support in the field requires close attention during project identification and preparation.

In contrast to many urban situations, there is an obvious lack of physical infrastructure. There is naturally a strong reliance on local initiatives, and programmes need to build on what is already happening. People themselves are at the centre of any actions, far more obviously than in the urban sector. A key aim of local government is therefore to support the existing village level institutions, as these are likely to offer the most effective means of sustaining any new facilities.

Where effective and accountable village institutions do not exist, the task of creating and nurturing them is essential for sustainable community infrastructure, and should not be underestimated.

Operation and maintenance considerations predominate in the planning and implementation of rural water and sanitation programmes. The more traditional system of centralized maintenance, using teams of trained technicians who travel out from a depot in order to inspect and repair facilities, has been largely ineffective. From the start of the water and sanitation Decade, attention has been devoted to ‘Village Level Operation and Maintenance Management’ — known as VLOM. Routine inspections and minor repairs are carried out by trained people from the community, and the concept of ‘community management’ is virtually interchangeable with VLOM in rural areas. There still needs to be an additional mechanism for reporting and repairing major faults. Most rural programmes now focus on VLOM, implying:

- the use of local resources;
- solutions based on local capacity and technical capability; and
- solutions which are sustainable through local human and financial resources.

1.5.3 Priority issues

The list of common principles gets longer every year, and it forms the basis for Chapter 2. It is worthwhile, though, to consider some generic themes which should guide the approach to any future WS&S project analysis.

Integration is one such theme. The challenge is not just to set up multi-component programmes, but to make the components work together coherently, so that the whole is greater than the sum of the parts. It is a particular challenge when combined with decentralization and management at the lowest appropriate level (two of the common principles). On the other hand, the integrated approach is an intuitive one for communities, who live on a daily basis with the links which are at the heart of it.

Partnerships are the driving force of sustainability.

Partnership is the next theme. Embracing the political, governmental, and civil groups in society in relationships which are inclusive and dynamic is the driving force for developing sustainable programmes. There is a wide range of stakeholders who can contribute to WS&S programme development. Some may need to be motivated and equipped through capacity-building programmes if they are to contribute their full potential. (For example, training and credit facilities for private low-cost drilling contractors can speed up implementation and reduce the costs of community borehole programmes).

In addition to these themes, the evidence has been accumulating for many years now that there are two important focus areas which need priority attention.

Sanitation is the first priority.

Sanitation is the first. National governments and the international community have continued to ignore the clamour from sector professionals for increased attention to sanitation for far too long. The situation has been described as ‘shameful’ and correcting it is now a global imperative (Richard Jolly, Chairman of the WSSCC at its conference in Manila in 1997). Change will require political commitment and diversion of resources and it will take time to achieve demonstrable results, but the longer it is delayed the worse the crisis will become and the harder it will be for the poor to escape the squalor and indignity they now endure.

Complexity is not an excuse for inaction to improve services to the urban poor.

The urban poor make up the next focus area. The sheer complexity of the urban and peri-urban scene can be an excuse for not getting involved. It must not be so. Investments in improved basic WS&S services can have a major impact on health and quality of life in the squatter settlements. They can also be the trigger for income generation and hence poverty alleviation. Failure to invest would mean further degradation of soil and water resources and the living environment, and a continuing brake on social and economic development.

1.6 The programme and project process

The White Paper on International Development emphasizes the partnership approach as the basis of UK co-operation in all development sectors. The other key element is the focus on poverty eradication. The identification and development of WS&S projects and programmes will emerge from the partnership approach and that approach will continue throughout the project cycle.

1.6.1 Building partnerships

In implementing UK Government policy on international development, DFID will work closely with other donors and development agencies to build partnerships with developing countries. In establishing these partnerships, the aim will be to strengthen the commitment to eliminate poverty and to mobilize the political will to achieve international development targets.

Long-term partnerships, negotiation, and compromise — UNICEF WS&S programmes in India

UNICEF has been working continuously in WS&S in India since 1966. It has established long-term partnerships with both central and state governments, with much greater influence than its share of expenditure in the sector. An evaluation found that it had made a major contribution in policy, design, and standards at the national level, by supporting innovative elements and pioneering approaches in both national and state programmes. UNICEF have supported, for example, a range of options for hygienic latrines, and promotion of sanitation through shops and demonstration sites; new hardware (for example India Mark II and Mark III handpumps); work on information, education, and communication; the involvement of NGOs; and the integration of hygiene, sanitation, and water supply.

UNICEF also provided long-term partial funding with cash or material supplies for established government programmes, and the evaluation found that these gave legitimacy to UNICEF and its efforts to get innovative ideas incorporated into government programmes. Without this financial commitment, UNICEF might not have had any influence in the on-going programmes. Inconsistencies were identified, however, between policies UNICEF was promoting centrally (for example elimination of subsidies for household latrines) and programmes it was supporting at state level (which still included latrine subsidies for the poor). This is understandable in the context of a long-term relationship, which provides support to partners while also advocating a change of policy, and government representatives compared this approach to partnership favourably with that of other donors. Weaknesses were also identified in the standard of delivery of the programmes at village level by the state government partner, which reduced the effectiveness and impact of the programmes.

Overall it is notable that UNICEF had a significant influence on national rural water supply and sanitation policy, while contributing only 1 per cent of the investment.

Smout et al., 1997

In pursuing its aim of eliminating poverty in poorer countries, DFID will work in partnership with developing countries, multilateral agencies and the private and voluntary sectors.

Programmes will be developed to pursue these targets in co-operation with poorer countries which are committed to achieving them. DFID also intends to work closely with the UK private and voluntary sectors and the research community in pursuit of the agreed targets. New ways of working together with these UK partners are being put in place. Among the targets is the goal to halve the proportion of the world's population living in extreme poverty by the year 2015, and the UK Government wants to measure the effectiveness of its own efforts, alongside others, in relation to this and other targets.

The approach is to be promoted through UK involvement in multilateral development assistance and in the bilateral programme through 'development partnerships'. Among the criteria for embarking on these long-term partnerships, involving all types of assistance, are that partner countries will be low-income and contain a large proportion of poor people. They will also be countries where the UK is wanted as a partner, has the influence to play a positive role, and has a comparative advantage in being able to make a strategic contribution to poverty reduction.

Previous experience of partnerships for WS&S development may have some lessons. The example of UNICEF in India (see box left) shows slow but significant influence on policy over the medium term, which could be seen as the result of mutual respect and understanding developed through technical assistance and support for partners' programmes. In such circumstances policy and institutional reform may be one of the outcomes from WS&S programmes followed over a period of working in partnership, rather than a pre-condition for partnership in the first place.

Partnership is not easy — careful negotiation and compromise may be required.

The issue of ownership is also important here. Whose programme is it? The partnership approach and concern for sustainability suggest that the programme should clearly be the host government's, supported by DFID and other external support agencies. Practice is more difficult. There may be several programme partners within the host government, and possible competition or differences in interest among them. Also where DFID-contracted staff or consultants have a major technical co-operation role, there is a danger that they (and DFID) may come to be seen as leading the programme. These issues require careful attention, at the outset and throughout the programme. The Gomti Project (see box below) describes some of the pitfalls and suggests ways of avoiding them.

1.6.2 Poverty eradication

DFID (1998c) has adopted a Poverty Aim Marker (PAM) in its Policy Information Marker System (PIMS). This identifies three types of action against poverty:

Focused, inclusive and enabling actions against poverty

- **Actions *focused* predominantly on the rights, interests, and needs of poor people.** An example might be where a project's benefits are targeted on low-income households, by restricting its scope to deprived rural regions, or to slums and informal urban settlements.
- ***Inclusive* broad-based actions** which improve opportunities and services generally, and also address issues of equity and barriers to participation of poor people. An example might be a project to

The Gomti River Pollution Control Project at Lucknow — Phase 1

The Gomti project originated in the DFID-supported Ganga Action Plan, which was primarily concerned with river water quality. It included the previous government partner and engineering consultant on a new project with an additional objective — improved cleanliness of the city of Lucknow — and a new management structure — a Project Management Unit. The main difficulties included partners' different objectives and different communication and decision-making channels, and a lack of focus on the agreed features of the new Gomti project. Another partnership issue was that DFID and state government had different expectations as far as preliminary studies were concerned. Misunderstandings and frictions contributed to poor project progress, and failure to proceed to Phase 2 as planned.



DFID/Howard J Davies

support reform of a utility to improve its overall performance, but also to help it provide better services to low-income consumers, for instance through reform of tariff structure to allow cross-subsidy from high-income to low-income consumers, and through provision of more public standposts.

- **Enabling** actions, which support the policies and context for poverty reduction and elimination. An example might be a project to develop a national policy framework for water supply, which aims for higher levels of cost recovery overall and a more transparent use of public subsidy to be targeted on improving water services for poor people.

1.6.3 Types of DFID assistance

The type of assistance which may be provided within partnerships includes both the conventional capital aid (financial support for specific projects or activities) and technical co-operation (transfer of skills). There is also the option to provide resources more strategically in support of sector-wide programmes. In WS&S, these types of assistance may be managed through longer term development assistance programmes, possibly following a multi-donor Sector-Wide Approach (SWAp), or a Sector Investment Programme (SIP).

The following description of the SWAp process is taken from *A Guide to Sector-Wide Approaches for Health Development*, WHO, 1997, by Andrew Cassells.

Sector-wide approaches involve medium-term programmes of work based on joint commitment to shared goals.

‘Sector-wide approaches will only succeed if there is sufficient commitment to shared goals on the part of government and key players in the donor community. Also, in unstable macro-economic conditions, no form of development assistance is likely to produce sustainable benefits. Sectoral programmes therefore depend on sound macro-economic policies and the need to form part of an overall public expenditure framework.

‘At the heart of the sector-wide approach is a medium-term collaborative programme of work concerned with the development of sectoral policies and strategies; projections of resource availability and expenditure plans; the establishment of management systems by governments *and* donors to facilitate the phased introduction of common management arrangements; and institutional reform and capacity building, in line with agreed policies. In addition, structures and processes need to be established for negotiating strategic and management issues, and reviewing sectoral performance against jointly agreed milestones and targets.

Implications

- ‘The most fundamental change is that some donors will give up the right to select which projects to finance, in exchange for having a voice in the process of developing sectoral strategy and allocating resources. For these donors, becoming a recognized stakeholder in

negotiating how resources are spent replaces project planning, and joint reviews of sectoral performance replace evaluation of discrete projects.

- ‘In many countries, there is no clear policy or strategic framework, budgets do not reflect spending priorities, and management systems are insufficiently developed to allow for common management arrangements. However, the components of the programme of work are defined in terms of *development objectives* — setting out what is to be achieved over time, rather than as a set of *prerequisites* which have to be in place before the form or volume of external investment can change.
- ‘Components of the programme of work need to be implemented at a pace which is appropriate to the country concerned, and in line with local priorities. As confidence in both policies and management systems grows, a wider group of donors will use national systems for disbursing funds — thereby decreasing the reliance on separate projects. In the interim, project support must be consistent with agreed policies and strategies.
- ‘Defining SWAps in terms of intent rather than eligibility does not preclude donors from identifying the steps needed to overcome key constraints to effective sectoral performance. Necessary actions will form part of the agreed programme of work, rather than being imposed as unilateral conditionalities.
- ‘Involvement in sector-wide approaches will require that donors review the appropriateness of the forms, channels, and systems that they currently use to provide development assistance. However, it is important not to equate the attributes of a sector-wide approach with the specific characteristics of the aid instruments used to finance it.’

Sector Investment Programmes are similar to SWAps and emphasise strong partnerships and local leadership.

The SIP is very similar in approach. The World Bank has identified the six ‘essential features’ of a genuine SIP:

- It is ‘sector-wide’ in scope and covers both current and capital expenditures.
- It is based on a clear sector strategy and policy framework.
- Local stakeholders (meaning governments, direct beneficiaries, NGOs, and private sector representatives) are fully in charge.
- All main donors sign on to the approach and participate in its financing.
- Implementation arrangements should to the extent possible be common to all donors.
- Local capacity, rather than long-term technical assistance, should be relied upon as much as possible.

WS&S projects will follow a flexible process approach rather than a fixed blueprint.

The logframe as a live management tool

Many factors influence the formulation of programmes and projects, and their progress.

1.6.4 The process approach

Individual WS&S projects are likely to follow the process rather than the blueprint approach. Process projects have agreed objectives, but the exact modalities for achieving these may at the outset be unknown and unknowable. As described in DFID Technical Note No.4, implementation takes place in successive, defined, stages and future stages are planned in the light of the outcome of initial interventions. Instead of defining in the initial Project Memorandum the activities and outputs necessary to achieve the objectives, the process of identifying them is specified. This is usually done on an annual basis with the setting of milestones, and the annual work programmes may then include conventional inputs and outputs. Process projects are therefore subject to more regular, thorough, reviews than conventional projects, with greater scope for radical changes in project design (ODA, 1996a).

The annual review cycle should be seen as an opportunity for constructive learning and planning, rather than as a policing exercise. It was found on the Gomti project in India that the logical framework could be useful here as a live management tool. This needs to be agreed with project partners, however, with the involvement of both primary and secondary stakeholders. There is a related need for regular review and planning workshops or events throughout the programme and project cycle, but particularly early on in the life of the programme, to foster commitment to agreed objectives. Again, these can include a review of the programme's logical framework.

1.6.5 Developing the WS&S programme

Programmes are the outcome of partnerships, and can be seen as a series of projects, covering an extended time period.

Programmes and projects emerge from interaction between stakeholders and external support agencies. There are milestones in the process, but the route is only loosely defined and relies on the judgement of the individuals involved, among partners and within DFID. The resulting project may then reflect the professional and personal interests of these individuals. Progress also depends on their skills and power as project champions to find solutions to the various problems which arise, and on the skills and power of other people with differing views on the proposed programme or project. These differences of opinion occur within host governments and within external support agencies, as well as between them.

Project proposals often have a history, and it is important to recognize this. Some have been around in one form or another for many years. Similarly the stakeholders involved will have a past relationship with each other and a record of work which may have a strong influence on what they will be able to do in the future. It is unrealistic to assume that projects start with a blank sheet, and important to recognize the difficulties in introducing change.

The starting point is likely to be an analysis of existing WS&S policy and the identification of constraints.



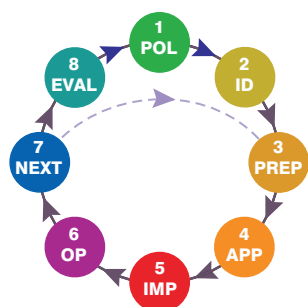
DFID

For future DFID programmes and projects the starting point is likely to be an analysis of existing WS&S policy in the country and the identification of constraints on reaching the poor with WS&S services, coupled with studies of people's current practices and their views on options for the future. The negotiation of partnerships will probably entail compromise on some issues, and difficult decisions on whether differences in approach make partnership impossible.

Before going further it is important to ensure political agreement to the basic principles or strategic framework required for meeting the conditions of success. If there are to be some fundamental changes in the way key institutions operate in the sector (e.g. much higher levels of cost recovery, greater responsiveness to users' demands, more participatory planning and management, privatization) it will be important from the outset to have strong political commitment to change, and agreement on what the financial targets should be.

The complexities and interlinkages of WS&S could make it difficult to get through this prior stage, which would be regrettable and frustrate the political commitment to a substantial increase in spending in WS&S. Policy-focused projects and process projects seem to provide a way of travelling forward, learning, and strengthening a partnership and then clarifying the route and endpoint during the project itself.

In this case, a key step may be developing agreement among the key stakeholders (donors, local government, utility, representatives of the poor and of other users, etc.) on the purpose of a specific programme or project.



1.6.6 Managing the project cycle

The DFID project cycle (see Section 1.1) is the basis for the guidance in this manual. The cycle is described in more detail in the DFID Office Instructions (ODA, 1996c), and is considered here as comprising eight elements:

1. Policy development, sector planning, and programme formulation
2. Programme and project identification
3. Programme and project preparation
4. Programme and project appraisal and approval
5. Implementation and monitoring
6. Operation and monitoring
7. Extensions or Next phase programme and project identification
8. Evaluation

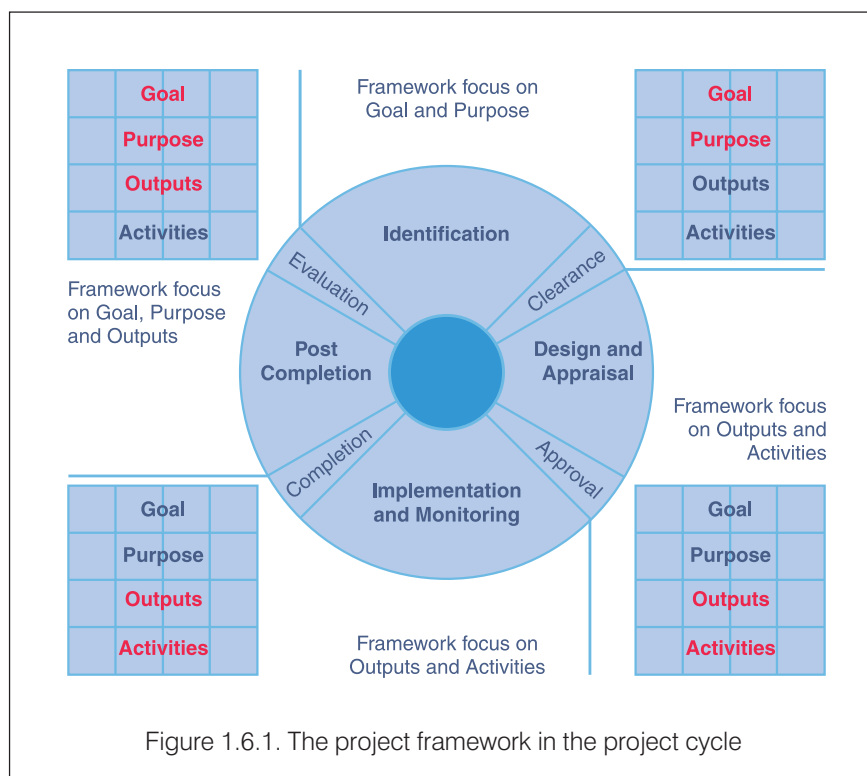
To keep a continuing and consistent check on progress and the achievement of project objectives, the logical framework (logframe) is used in various forms by most external support agencies, including DFID and the EU, though not the World Bank. It provides a systematic way of developing and presenting the rationale of a project and its key features.

1.6.7 The project framework and the project cycle

The diagram illustrates the conventional use of the logframe during the project cycle, with a shifting focus from the *Goal* and the *Purpose* at Project Identification stage, to the *Outputs* and the *Activities* during the stages from Project Preparation/Design to Project Completion, reverting then to the Goal, Purpose, and Outputs at the Evaluation stage. Note however that DFID practice is now to retain a focus on the Purpose throughout the project cycle, and this is particularly important for the process approach to projects which is now being followed.



WaterAid/Jim Holmes



Considering DFID's overall Aim and Objectives, a reasonable *Goal* for DFID WS&S programmes and projects would be:

'A sustainable improvement in health and well-being for poor people'

Suggested *Purposes* for WS&S projects

Depending on the existing constraints to improvement, individual programmes or projects to achieve this goal might include such *Purposes* as:

- Establishment of sound, sustainable environmental services for N000 poor people in water supply, sanitation, and hygiene promotion
- Expansion of coverage (to N% of the poor urban population in X town or city or N% of the rural population in Y district or region) with adequate, safe, and conveniently located domestic water supplies they are willing to use, at prices they are willing to pay

- Expansion of coverage (to N% of the poor urban population in X town or city) with appropriate household sanitation (and possibly wastewater disposal and solid waste disposal services) at prices they are willing to pay
- Expansion of coverage (to N% of the rural population in Y district or region) with appropriate household sanitation
- Development of safer water, sanitation, and hygiene practices among N000 poor people in X town or city or Y district or region
- Increased involvement of N000 primary stakeholders (including marginalized groups) in decision-making and management of water supply and sanitation and other services
- Provision and utilisation of improved, community-based and sustainable water and sanitation services and hygiene practices in (x) project villages, with successful approaches disseminated outside the area.

Improved performance of institutions is often required to achieve the project purpose, which necessitates institutional development of some kind. This is particularly true where there are concerns about operation and maintenance, cost recovery and sustainability. When developing a logframe, it is then necessary to have institutional development components at the output level such as:

- cost recovery system developed, agreed and functioning;
- HRD plan developed, agreed and implemented; and
- management development programme designed, agreed and implemented.

