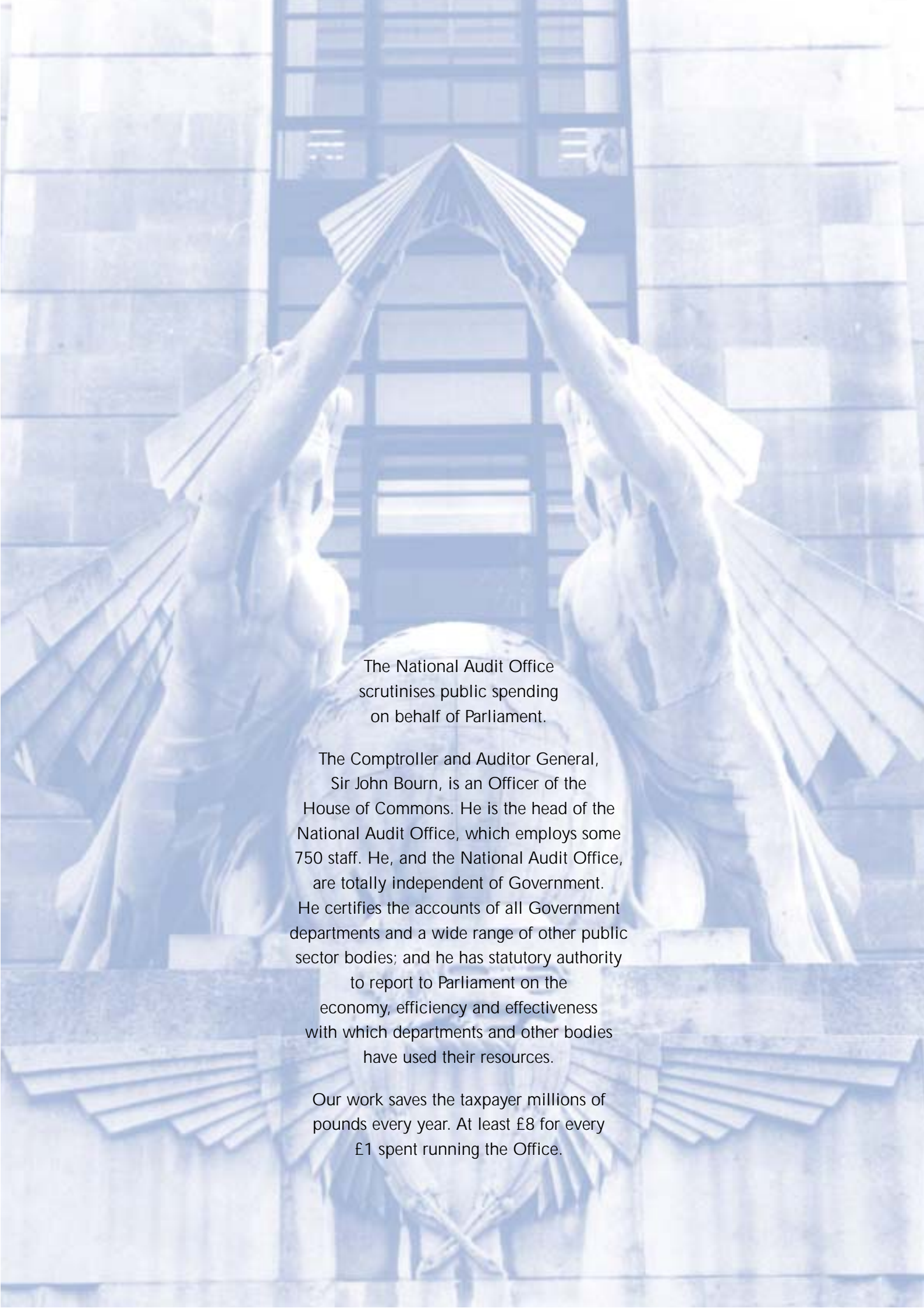


Department for International Development:
Maximising impact in the water sector

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
HC 351 Session 2002-2003: 31 January 2003





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Department for International Development:
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This report has been prepared under Section 6 of the National Audit Act 1983 for presentation to the House of Commons in accordance with Section 9 of the Act.

John Bourn National Audit Office
Comptroller and Auditor General 28 January 2003

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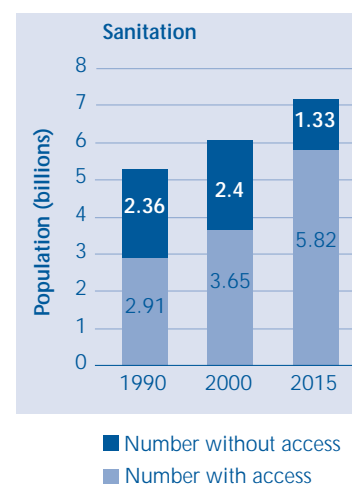
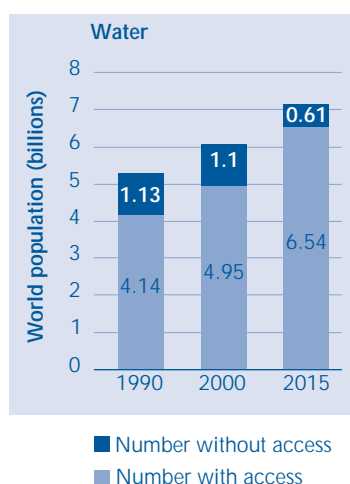
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executive summary

- 1 More than 1 billion people, the equivalent of one sixth of the world's population, lack access to safe drinking water and 2.4 billion people, two-fifths of the world population, lack basic sanitation facilities. In Africa, approximately one third of the population does not have access to water or sanitation facilities and in Asia less than half of the population has access to adequate sanitation facilities. Providing access to water and sanitation is inextricably linked to the alleviation of poverty and is a key factor in improving the health and economic productivity of poor people.
- 2 The Millennium Development Goals were adopted by member countries of the United Nations in 2000 and provide a global consensus on objectives for addressing poverty. They include a target to halve by 2015 the proportion of people without sustainable access to safe drinking water. At the World Summit for Sustainable Development in Johannesburg in 2002, participating governments also agreed to the adoption of a target to halve by 2015 the proportion of people without access to adequate sanitation facilities. Achieving these targets and addressing the global water crisis represents a huge task for the international donor community. The World Health Organisation estimates that, taking into account current predictions of population growth, some 1.6 billion people need to be provided with access to water (the equivalent of 290,000 per day between now and 2015) and 2.2 billion need access to sanitation facilities (the equivalent of 380,000 per day) (Figure 1). An increasing proportion of the global population has gained access to water and sanitation facilities over the last decade but the rate of provision of improved services needs to be accelerated if targets are to be met.

1 Meeting the Millennium Development Goals remains a huge task



Source: Global Water Supply and Sanitation Assessment 2000 Report

- 3 The Department for International Development (DFID) is responsible for leading the United Kingdom Government's contribution to promoting development and the reduction of poverty. The overall objective is the elimination of world poverty and DFID is committed to the achievement of the Millennium Development Goals. The Goals are shared global targets and neither DFID, nor any individual donor, can achieve the targets alone. In pursuit of these Goals, DFID works at global, national and local levels and in partnership with a range of organisations, including bilateral and multilateral donors, partner governments in developing countries and non-government organisations. At the global level, DFID seeks to promote the international development agenda by influencing the goals and practices of the donor community and partner governments. At the national level, DFID uses its bilateral aid programmes to tackle poverty issues in developing countries and at the local level, it provides development assistance through a range of approaches with the aim of securing lasting improvements for poor people.



- 4 DFID does not have unlimited resources and concentrates its activities in those areas where it judges it will have the greatest impact. DFID has staff dedicated to managing its assistance to individual countries and it is the responsibility of these teams to propose where and how resources should be spent, in the light of DFID's policy framework and an assessment of the poverty priorities of partner governments. DFID's involvement in the water sector, like all sectors, is determined within this context.
- 5 Given the challenges of addressing the global water crisis and DFID's objective of achieving value for money in the use of its resources, we examined whether DFID has taken appropriate steps to maximise the impact of its assistance in the water sector.
 - First, we examined what DFID has achieved through its direct assistance in the water sector in developing countries. We found DFID's assessments show that its projects have been largely successful in meeting their objectives although there is a lack of evidence to determine the extent to which they have achieved a sustainable impact. Further, DFID is making greater use of budget support in order to seek improvements in the effectiveness of its aid but there are a number of challenges to achieving potential benefits.
 - Secondly, we examined how DFID designed country programmes and whether due consideration was given to the water sector. We found that DFID's involvement in the water sector in developing countries is relatively modest. This reflects the relative priority which DFID gives to water, the poverty priorities of individual countries, the contribution of other donors to the sector and the need to balance the competing demands of the water sector for DFID funds against the demands of other sectors, such as health and education.
 - Thirdly, we examined how effective DFID is in influencing the international agenda in the water sector. We found that DFID is highly influential in its international role but there is scope for more effective use of its research.

DFID's assessments show that its water projects have been largely successful in meeting their objectives

- 6 DFID's bilateral assistance in the water sector has historically been through the funding of projects. These have covered a broad range of interventions depending upon the specific needs of individual countries. They have included infrastructure projects, such as the provision of wells or latrines, and projects aimed at strengthening the institutional capacity of service providers in developing countries.
- 7 We found that, where assessments were available, three quarters of dedicated water and sanitation projects completed between 1997 and 2002 had completely or largely met their objectives in terms of achieving their intended outputs and the changes planned during the project design. These ratings are comparable to the scores achieved by DFID's projects in other sectors. Project scoring provides one indicator of project success. DFID also uses its project completion reports to determine project achievements and carries out periodic ex-post evaluations to assess wider impacts. These assessments, together with our country visits, showed that individual projects have led to beneficial change, in terms of strengthening institutional capacity and improved access to water and sanitation services. But the diverse nature of DFID's projects means that it is not possible to aggregate project results to determine the overall impact of DFID's assistance, for example in terms of services provided or the number of people that have benefited from its work.


But the sustainable impact of projects is often not known

- 8 Two key criteria in judging the success of projects are the extent to which they achieve a sustainable impact and whether there is wider replication of project methodologies by host governments. We found that there was a lack of available evidence to assess the extent to which DFID's projects are achieving a lasting beneficial impact. Half of the available assessments concluded that it was too early to judge the likelihood of sustainability and, of the remainder, two thirds of reports raised doubts and risks as to whether a sustainable impact would be achieved. During our fieldwork we visited a number of DFID projects in four countries and found a mixed level of success. Problems that arose were most commonly due to insufficient attention being paid to operation and maintenance issues, a lack of local capacity and inadequate understanding of local circumstances. Against the criterion of project replication, we found that DFID had achieved mixed success with some good examples of wider uptake by host governments. Achieving a lasting beneficial impact in the water sector is a difficult task for all donors. We noted that there were doubts over the proportion of water sources that remained in good working order in many developing countries. This has led to concerns as to whether improvements in access to water and sanitation facilities will be sustained and has begun to raise doubts in the development community over the progress being made towards the water targets set by the Millennium Development Goals.
- 9 We found that DFID's approach to the design and implementation of projects was generally consistent with good practice. Projects recognised the importance of sustainability and replication but not all gave sufficient emphasis to the internationally recognised factors which increase the chances of project success. DFID has also sought to address sustainability issues by implementing projects with a greater emphasis on strengthening the institutional capacity of key water bodies in developing countries. This approach is consistent with evolving donor thinking and was highly regarded by other donors and partner governments in the countries that we visited. To some extent the difficulties of achieving a sustainable impact reflect the complexities of providing development assistance but there is also a need for DFID to strengthen its approach to knowledge management throughout the organisation and ensure that staff are kept aware of good practice criteria.

DFID is committed to changing the way in which it delivers aid. These changes bring with them challenges as well as potential benefits

- 10 In 2001-02 DFID disbursed £290 million of aid through budget support. This involves the provision of aid direct to the national budget of partner governments. DFID, along with much of the donor community, believes that progress towards the achievement of development outcomes is more likely to be made by helping partner governments to implement long-term poverty reduction programmes rather than funding isolated projects. The provision of budget support aims to assist partner governments in their implementation of an agreed poverty reduction strategy. It places greater emphasis on building the capacity of institutions to deliver public services and strengthening government systems to disburse funds more efficiently and effectively to address poverty issues. To a large extent, budget support seeks to address the weaknesses inherent in the project aid approach, such as difficulties in achieving a sustainable impact. The development gains achieved in Uganda give an indication of the potential benefits that budget support can bring (Figure 14 on page 19).



- 
- 11 Budget support creates a different set of risks to the provision of project aid as DFID is not directly responsible for the use of funds after they have been disbursed into partner government budgets. As with all aid expenditure, DFID must be able to provide reasonable assurance that funds are used for the intended purpose of addressing poverty reduction targets. DFID has responded by establishing the key principles that must be met before entering into budget support agreements. In the countries that we visited, country teams had undertaken explicit risk assessments of the strength of partner government systems and sought to address identified risks by implementing a range of measures to safeguard and provide feedback on the use of funds. These have included donor-funded studies tracking government expenditure to provide assurance that funds are being disbursed in accordance with poverty priorities and support to national state audit institutions to provide robust and timely feedback on government expenditure.
 - 12 There remain a number of challenges to achieving the desired outcomes in individual sectors and, in the water sector, to achieving targets of improved water and sanitation access. In particular, budget support places additional reliance on the capacity of host governments to spend funds effectively and there is evidence that increased spending in the water sector does not always lead to proportionate increases in improved access to services. Analysis by donors has highlighted that there are weaknesses in government capacity in the water sector, particularly in those parts of government which are often responsible for managing delivery of water services and also in the poorest regions of countries, where lack of access is likely to be most acute. Building capacity is one of the objectives of budget support. DFID also seeks to support its use by providing technical assistance to strengthen government systems. But we found that there was scope for greater attention to developing government capacity, particularly at the local level, to deliver improved water and sanitation services.

DFID's involvement in the water sector in developing countries is relatively modest

- 13 DFID's published statistics indicate that, between 1997 and 2002, its expenditure in the water sector has been maintained at a broadly constant level. Over this period, water spend has averaged some four per cent of the bilateral aid programme which was spent on specific sectors. DFID's financial contribution to the water sector is provided through dedicated projects and as part of wider projects where, for example, the primary aim is to tackle health and education issues. DFID's analysis of all projects indicates that its water-related expenditure was £87 million in 2001-02. Assistance to the water sector has focussed predominantly on improving access to water and sanitation, and other sub-sectors, such as water for food, have received less attention. DFID's water expenditure is significantly less than some other donors, both in absolute terms and as a proportion of the total aid programme. We found that DFID has few substantive country water programmes of long-term strategic assistance in the water sector and, in individual countries, its contribution generally represents a small proportion of total donor commitment to the sector.
- 14 DFID currently has commitments to the water sector in 691 on-going projects, valued at £521 million. The value of new project commitments increased from £124 million in 1998-99 to a peak of £182 million in 1999-00, but has fallen in subsequent years to £86 million in 2001-02. Rates of decline are highest in African countries due to greater use of new aid instruments such as budget support.

The poverty priorities of developing countries are the key driver in determining the focus of country programmes

15 DFID cannot do everything everywhere and country teams seek to balance the competing priorities of different sectors to decide where to focus DFID's efforts to best effect. Country teams have a large degree of autonomy in proposing how their resource allocation will be spent. We agree with DFID that its decentralised structure has many benefits and is appropriate in aligning its assistance with the poverty priorities of developing countries. The Millennium Development Goals set the agenda for DFID's involvement in developing countries. This serves to ensure that country programmes are consistent with DFID's aim of the elimination of poverty. We found that the key factors which influence the design of country programmes are:

- the poverty priorities of the partner country as DFID seeks to align its assistance with host nation poverty reduction strategies;
- the extent of involvement of other bilateral and multilateral donors in each sector and an assessment of whether DFID has specific sectoral knowledge or experience that would give a comparative advantage over other donors; and
- the need to balance competing demands for finite resources.

16 Our consultation exercise raised some concerns that DFID's policy level commitment to the water sector is not translated into appropriate coverage at the country level. However this needs to be considered in a broader context. First, DFID has not given water the same level of priority as some other sectors. A lower level water target was included in the 2001-04 Public Service Agreement, but no water or sanitation target is included in the 2003-06 Agreement. Second, greater involvement in the water sector would have to be at the expense of assistance in other areas such as health or education. On our country visits we also noted that varying use was made of country needs assessments to inform the country planning process. Further, where no water or engineering adviser was based in the country team, limited use was made of regional expertise to ensure that the needs of the water sector were given due consideration.



DFID is highly influential in its international role but there is scope for more effective use of its research.

- 17 In addition to the assistance that it provides through its country programmes, DFID engages in broader 'influencing' activity with host nations, other donors, non-government organisations and other bodies in the water sector. Influencing is clearly important in the development field and can help promote long-term policy reform and the adoption of good practice by partner governments. In the water sector, DFID has been proactive in developing partnerships with a range of bodies and its advocacy role is highly regarded. Our consultation exercise indicated that DFID plays a leading and high profile role in highlighting the needs of the water sector within the international donor community. For example, it pressed strongly for the adoption of the sanitation target at the World Summit. DFID also provides support to a wide range of bodies and initiatives to promote good practice and develop innovative approaches in the sector.
- 18 DFID spends more than £100 million per annum on development-oriented research, of which some £3 million is spent on water-related research. The aim is to generate better knowledge to inform DFID's, and the wider development community's, approach to tackling water issues in developing countries. DFID uses a range of methods to disseminate the results of its research and we found that use had been made of research by partner governments. But there was scope to improve uptake further and to provide a basis for closer collaboration between donors and partner governments. In response, DFID is developing a strategy to improve the use made of its research.



Overall conclusion and recommendations

- 19 The international community faces an enormous challenge to achieve the goals that it has set for securing improved access to safe drinking water and adequate sanitation in developing countries. It is in this context that DFID has to ensure that its interventions in the water sector represent value for money and further the United Kingdom's aim of contributing to the elimination of world poverty. This Report illustrates that DFID operates at the international, national and local levels in seeking to achieve its aims and, in all of these areas, can point to successes and new initiatives to improve its performance. Nevertheless our examination indicated a number of additional steps that DFID should take to maximise its impact in the water sector. In this context, we recommend the following:

On the impact of DFID's assistance in the water sector in developing countries:

- (a) Key issues in all projects are achieving replication and sustainability. To identify good practice and ensure that these issues are more effectively addressed in project design, DFID needs to develop further its approach to project evaluations to identify those factors which lead to a lasting beneficial impact. DFID also needs to consider whether its approach to knowledge management ensures that staff are kept up-to-date with evolving good practice.
- (b) When using budget support, DFID should continue to ensure that explicit assessments of risk are undertaken and appropriate safeguards are put in place to provide assurance on the accountability of DFID funds. DFID has taken a leading international role in developing the safeguards needed for budget support, but there is scope for closer working with other donors to tackle weaknesses in government systems and to give greater attention to strengthening institutional capacity, particularly in those bodies which are responsible for service delivery. DFID must also ensure that good quality information is available to assess progress towards poverty targets in those countries where it uses budget support. Again, there is scope for increased collaboration with other donors to secure this objective.

On the design of country programmes:

- (c) DFID should ensure that the focus and balance of its programmes for individual developing countries is underpinned by a rigorous analysis of the country's needs and that effective use is made of the expertise and knowledge available in the Department. In assessing competing demands for resources, country teams should be able to demonstrate the contribution of their assistance to the elimination of poverty in individual countries.
- (d) More specifically, in relation to water, DFID needs to ensure that in developing country programmes due weight is given to issues around sanitation, water resource management and water for food.

On DFID's international role:

- (e) Clearly, it is very important for the United Kingdom that DFID continues to make an effective contribution to the international community's efforts to eliminate world poverty and to international thinking on issues around water and sanitation. There is scope for DFID to promote greater use of the research that it commissions. We believe that adequate provision for the development of dissemination strategies should be built into research projects.

Part 1

DFID's water projects have largely met their objectives and the changing approach to the delivery of aid raises some challenges for the future

1.1 DFID has traditionally provided bilateral aid to the water sector through the implementation of projects in developing countries. In preparing this Report, we assessed the success and achievements of these projects against three criteria: whether projects have met their objectives; whether the impact will be sustainable; and whether there has been wider uptake or replication of the project approach. We found that, where assessments were available, these showed that three-quarters of water projects had largely achieved their objectives. But less evidence is available on the longer-term sustainability or wider uptake of projects, so it is difficult to assess fully whether projects have been successful in achieving wider or sustained impacts. DFID attaches much importance to achieving sustainable interventions and this has led to a shift in the focus of its water projects towards a greater emphasis on strengthening institutional capacity in order to seek a lasting impact.

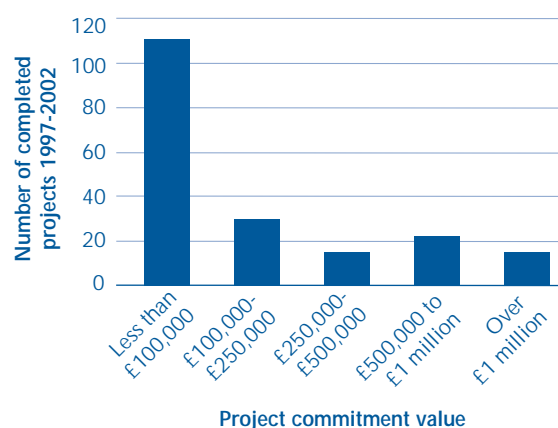
1.2 Generally there has been concern within the development community that funding discrete projects has not consistently produced lasting beneficial changes. DFID is thus making greater use of direct budget support in order to seek improvements in the effectiveness of its aid. Budget support involves the disbursement of funds directly into the national budgets of partner governments and thus creates a different set of risks to project aid. These risks need to be addressed if the intended developmental gains are to be achieved. We examined how the Department is responding and concluded that DFID is being proactive in managing the financial risks but there remain a number of challenges to the delivery and evaluation of sector level improvements which need greater attention.

DFID's assessments show that projects have largely met their objectives but their sustainable impact is often not known

DFID's water projects cover a wide range of approaches

1.3 Between 1997 and 2002 DFID carried out 193 dedicated water and sanitation projects, which were started and completed within this period. This represented an original commitment of £61 million. 37 of these projects were over £500,000 in value and accounted for £46 million of the total commitment (Figure 2). There were a large number of relatively small projects and 57 per cent had a commitment value of less than £100,000. Over two-thirds of projects, including all of those over £500,000, were interventions in developing countries aimed at improving access to water and sanitation and promoting better water resource management. The remainder represented expenditure on a range of generally low value interventions such as funding for conferences, publications or research. Just over half the value of commitments was on projects in Asian countries and 25 per cent was in Africa.

2 A breakdown of DFID's completed water and sanitation projects 1997 to 2002



Source: DFID management information

- 1.4 In addition, water and sanitation issues are included as part of projects where the primary focus is on, for example, health, education or rural livelihoods. In 2001-02, DFID analysed all of its on-going projects to estimate the level of total bilateral expenditure in the water sector and found that there were 691 projects with some component of water expenditure. Water was often a relatively minor element of these projects and represented less than one third of total project expenditure in 43 per cent of cases. DFID estimated that its total water-related expenditure was £87 million in 2001-02, of which £73 million was disbursed on projects through its country programmes (see paragraph 2.6).
- 1.5 The focus of DFID's projects is varied and outputs are diverse (Figure 3). These include infrastructure projects, such as the provision of community wells or latrines; support to strengthen the institutional capacity of national or local government; and the provision of expertise through the use of technical co-operation officers. Our country visits demonstrated that DFID tailors its approach to individual country circumstances. For example, in South Africa, DFID has supported the government by building its institutional and technical capacity (Figure 3); whilst in Ghana, DFID has funded infrastructure projects to improve access to water and sanitation and assisted the government in its reform of the water sector and its move towards private sector participation. We commissioned a piece of research into the lessons learned by industrialised countries in providing drinking water and sanitation (Appendix 2). This showed that there are many parallels for developing countries today.

Where assessments have been carried out, projects have been largely successful in achieving their objectives

- 1.6 DFID assesses whether projects have achieved their planned objectives as part of its established approach to project monitoring and evaluation (Figure 11). We examined DFID's performance in all water projects which were started and completed since 1997. This ensured that our evaluation considered DFID's more recent approach to implementing its projects. Such assessments were available for 26 of the 33 water projects which were eligible to be monitored. We found the projects' planned outputs had been completely or largely achieved in 20 projects, and that the intended changes resulting from those outputs had been completely or largely achieved in 19 projects (Figure 4). Two projects were assessed as having had little or no impact. Figure 5 shows that these results are comparable with DFID's projects in other sectors between 1994 and 1999.
- 1.7 The assessment of performance against objectives provides one indicator of project success but, alone, is insufficient in providing information on the achievements of projects. For example, projects with ambitious goals may only achieve a rating of "partially achieved" in project scoring, yet still make significant improvements in country. Further evaluation of projects is necessary to assess fully their achievements. All DFID projects above £1 million (£500,000 before April 2002) are subject to project completion reports which provide feedback on project achievements, generally in terms of the input provided or outputs achieved. We examined the available reports for water projects and found that there have been some significant achievements in individual projects, both in terms of developing institutional support and in the provision of infrastructure (Appendix 3). However, the diverse nature of DFID's assistance means that it is not possible to aggregate project results to determine its overall contribution in the water sector either in individual countries or globally. Further, it is not possible to determine how many people have been provided with access to water and sanitation as a result of DFID's assistance.
- 1.8 The limited number of available project completion reports also makes it difficult to evaluate the extent of DFID's achievements. Project completion reports should have been carried out for 32 of 193 water projects but we found that only 17 had been undertaken. In value terms,

3 DFID's projects differ widely in their approach

Water Sector Support Project, South Africa

This project started in June 1998 and is due for completion in March 2003 at a total cost of £5.46 million.

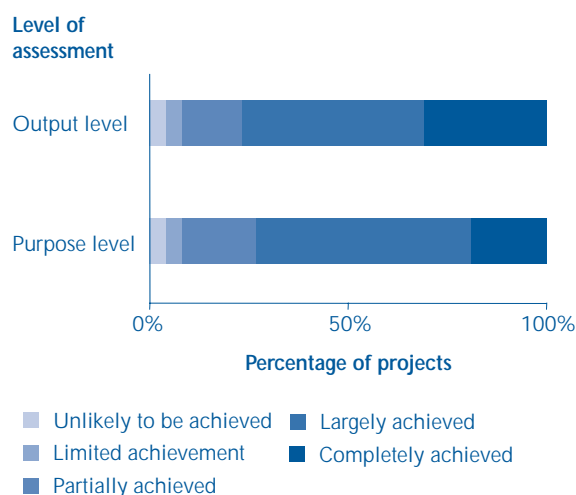
Aim: to support the establishment of effective authority by local government for the management of sustainable water-focused services. The project focused on building the capacity of government at all levels to support the implementation of the new governance and delivery roles of national and local government water policy. The project used a range of approaches and increasingly worked with other donors to promote sector reform. Activities included provision of technical advice to the Government, assistance with the development of policy and strategy, empowerment processes for local government, discrete pilot scale projects and support for departmental restructuring.

Dowa District Safe Water and Sanitation, Malawi

The project started in 1998 and was completed in 2001 at a total cost of £643,000.

Aim: Rehabilitation of water points, drilling of new boreholes and construction of pit latrines, complemented by training in village level operation and maintenance of water points, and hygiene education and sanitation promotion to targeted communities. The project achieved the construction and rehabilitation of new water points and latrines and training for communities and schools.

4 DFID assessment of the achievement of project objectives for water projects completed between 1997 and 2002



NOTE:

Output level rating assesses whether projects have achieved planned results. Purpose level rating assesses whether intended changes have occurred in the host country as a result of outputs.

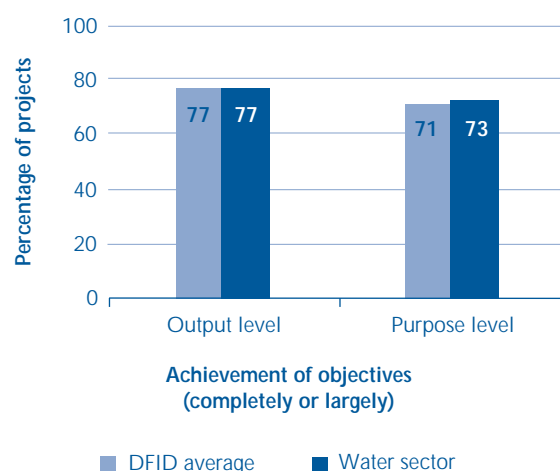
Source: NAO analysis of Project Scoring Information

this represented coverage of £19 million of aid, some 56 per cent of the value of eligible water projects. DFID's 2002 *Development Effectiveness Report*, a bi-annual assessment of its overall effectiveness, indicated that the level of coverage is similar in other sectors. Our report on *DFID: Performance Management - Helping to Reduce World Poverty (HC 739, 2001-02)* drew attention to the need to improve compliance with project evaluation procedures. We noted that DFID was making a concerted effort to improve coverage and had made substantial improvements in the number of projects scored. DFID is also addressing non-compliance with project completion report requirements but there will be a time lag before these improvements are reflected fully in its statistics.

The sustainable impact of projects is often not known

1.9 If DFID's high level targets are to be met and value for money obtained, projects must have a lasting beneficial impact. There are many difficulties in achieving a sustainable impact and a wide range of complex, inter-dependent factors influence each project's success. DFID seeks to assess the likelihood of sustainability in its project completion reports. We found that projects have had mixed results. Just under half of project completion reports concluded that it was too early to make a judgement on the likelihood of sustainability and, of the remainder, two thirds of reports highlighted problems or risks to achieving a sustained improvement. Common difficulties included a lack of financial or operational capacity within the partner government and insufficient attention on operation and maintenance issues.

5 Percentage of projects largely or completely achieving their objectives: DFID's water sector projects against DFID average



Source: National Audit Office analysis and DFID Project Completion Synthesis report

1.10 These findings were supported by our fieldwork in four countries. We visited projects in which water sources and sanitation facilities were well maintained and community groups had been established to manage the facility. However, in other cases, doubts were raised over the continued operability and effectiveness of interventions funded by DFID. In Uganda, we heard concerns that DFID and another donor had installed different types of water pump in the same district. This created confusion in local communities in understanding the operation of different types of pump and in acquiring the correct spare parts. In other cases we noted that the inability of local partners to address problems arising from interventions had created difficulties with sustainability. **Figure 6 overleaf** gives an example where the partner government did not have the capacity to respond to a problem identified during a project. In this case, insufficient attention was given to wider water resource management issues leading to a reduction in the effectiveness of the project funded by DFID for a short period each year. This illustrates that projects should give adequate attention to the financial and human resource capacity of the body responsible for project management after donor funding ends.

1.11 Achieving a sustainable impact in the water sector is a difficult task for all donors and partner governments, due to the complexity of providing improved services in what are often weak institutional settings. Concerns over the continued operation of water sources have been raised in many developing countries and the situations in Uganda and Rwanda are typical (**Figure 7 overleaf**). This has led to concerns as to whether improvements in access to water and sanitation will be sustained in developing countries and has begun to raise doubts in the international development community over the progress being made towards the 2015 targets for improving access to water, as set by the Millennium Development Goals.

6 Two Regions Project, Ghana

This project was an extension to a previous project, which started in 1990. The project extension ran from 1993 to 1998 and the total cost was £11.4 million.

Aim: to restore water supplies to eleven towns in Brong Ahafo and Ashanti regions of Ghana. In Sunyani the project focused on improving the water supply through the rehabilitation of a water treatment plant and expansion of existing water systems. The project met its objective of increasing water supply from 1 million to 1.8 million gallons per day.

Difficulties encountered: Subsequent to the completion of the project, the river source dried up for approximately six weeks during the dry seasons of 2000 and 2001 (we visited before the 2002 dry season). The reasons for this included increased stress on the water supply and deforestation in the surrounding area. As a result, the water treatment plant is not able to function to its maximum capacity during these periods. DFID recognised the potential problems during project implementation and carried out a follow-up study on the water resource management issues. However, the Ghana Government has not implemented the recommendations

7 Problems of sustainability are widespread in developing countries

Uganda

Although there have been increases in access to safe drinking water, a Government report indicated that progress may not be sustainable. The report found:

"the water sector is ... characterised by ineffective utilisation and non-sustainability of services. In the rural area, over 30 per cent of rural systems are non-functional, the water handling and storage is often unhygienic, resulting in water from a safe source becoming contaminated by the time it is consumed. Poor care and maintenance of facilities have rendered many protected water sources, especially boreholes to be abandoned."

The difficulties highlighted above are one of the reasons why DFID is changing its approach in Uganda from funding discrete projects towards the increased use of budget support and the implementation of a project to support the government in its reform of the water sector (Appendix 5).

Rwanda

The Rwanda Poverty Reduction Strategy Paper noted:

"despite significant investments in the past, sustained access to safe water sources has probably declined in rural areas.... Based on the distribution of water points, coverage in rural areas should have been close to 70 per cent... but coverage may have declined to 44 per cent taking into account the actual condition of facilities."

It can be difficult to achieve a wider uptake of projects although DFID has had some successful results

1.12 To achieve a wider developmental impact, projects must be replicable beyond their specific project location. It is also important that they can be scaled up to achieve wider use by partner governments or communities. We found that approximately half of water project evaluations had considered the potential for wider uptake of the project approach by local communities or government. Of these, some projects reported significant achievements (Figure 8) but others reported scope for increased influence and uptake. There are many reasons why a wider uptake is difficult to achieve, including capacity weaknesses within the partner government and, often, the division of responsibility for water between different ministries.

8 Child's Environment: Sanitation, Hygiene and Water Supply Programme, India

The project started in 1999 and is due for completion in 2004 at an estimated cost of £17.5 million.

Aim: The purpose of the project is to increase the number of households which adopt improved hygiene behaviour, use safe water supplies and hygienic toilets, in a sustainable manner. The project will reach an estimated population of 15 million people in rural areas.

Outputs:

- 345,000 household latrines were constructed in 2001-2002 and coverage in project districts has increased to 50 per cent in 2001, including 100 per cent in one sub-district.
- School sanitation demonstration projects in 10,000 primary schools in 20 districts

Impacts:

- Less diarrhoeal disease
- Admittance to health centres reducing
- Additional retained income (not spent on medicine)
- Cohesiveness of families increased
- Women more empowered (involved in building latrines)

Achievement of replication and influence on national policy:

- Our project visit demonstrated that wider uptake has been achieved by the project, with district authorities and non-governmental organisations being motivated to set up programmes for increasing sanitation facilities elsewhere in the state based on the project's approach.

DFID has sought to address sustainability issues in project design

DFID has increased its focus on institutional matters in order to improve the likelihood of sustainability

1.13 DFID has responded to the need to achieve a sustainable impact in a number of ways. In many countries, including Uganda and Ghana, DFID is seeking to support partner governments in building institutional capacity, both through projects and the increased use of budget support (paragraphs 1.23 to 1.38). This is also reflected in DFID's wider efforts to improve good governance in order to strengthen government capacity to deliver sustainable improvements. Improving governance has been a major focus of DFID's work for a number of years and it has recognised that building effective institutions is an important pre-condition in achieving sustainable development.

1.14 There has been a shift in the focus of DFID's water projects away from infrastructure projects towards an increasing emphasis on strengthening the institutional capacity of bodies responsible for water delivery. This is consistent with the evolving approach of the international community in the water sector since the 1980s (Appendix 4). DFID believes that by focusing on strengthening government institutions and public bodies, the resulting institutional changes will lead to lasting improvements in these bodies and increase their ability to implement improvements across a wider population. We noted a number of examples in which DFID has sought to strengthen government capacity through the secondment of staff with relevant expertise to government departments. In South Africa, the provision of DFID technical advisers was valued highly by the government and had a number of beneficial impacts, including assistance in the preparation of new government legislation and an increased emphasis on sanitation and water resource management issues.



DFID considers sustainability issues in the design of projects

1.15 We examined a sample of water project design documents and found that, generally, country teams had adopted good practice in project design. In particular, we found that the focus of projects was consistent with country strategies and aligned with government priorities. Project design documents also showed that many of the key factors that increase the chances of sustainability (Figure 9 overleaf) had been considered in project design, although some factors received less attention than others. For example, we found that infrastructure projects gave due consideration to operation and maintenance issues, such the need to ensure that the recipient community takes ownership of arrangements for the repair and maintenance of water pumps. But there were fewer references to the availability of replacement parts, the use of cost-effective technology and hygiene awareness issues.

Local communities are taught how to maintain water pumps.



1.16 Developing a detailed understanding of the country's needs and local circumstance is an integral part of project design and important in optimising the chances of project success. On our country visits, we found that water advisers had a good general understanding of country circumstance. DFID devotes considerable effort to project design and this generally includes appraisals of the project environment and identification of risks associated with the project. However, our consultation exercise raised some concerns that DFID's understanding of the situation in individual countries can be variable. We noted one project where problems resulted from an insufficient understanding of the local situation (Figure 10).

1.17 Once projects are underway, it is important that they are managed proactively to ensure that firstly, the project approach is dynamic and responds to the circumstances encountered, and that, secondly, that there is proper financial control. DFID has a well-established approach to project monitoring, including periodic reviews and visits to project sites. In practice, security considerations, the often remote location of projects and resource issues can sometimes constrain the level of project monitoring that is possible. However, it is important that appropriate measures are implemented to minimise risks of project failure. We found some variation in DFID's approach. There were some good examples of project monitoring which resulted in improvements to the project. We noted, for example, project monitoring in the Oju/Obi water project in Nigeria had identified weaknesses and this led to major improvements in the project's performance. We also identified some examples where project monitoring had been less robust. In Uganda, for example, the Busoga Trust project had encountered problems with late delivery of financial accounts and inventory information. DFID took action in 2000 to obtain the necessary information on a more timely basis.

DFID's approach to project evaluation could give more emphasis to wider impacts and sustainability

1.18 DFID has a well-established approach to monitoring and evaluating its projects (Figure 11). This includes the requirement for teams to carry out project completion reports for all bilateral projects with a commitment in excess of £1 million (£500,000 before April 2002). These reports are generally carried out by those involved in the project but also include, where possible, a person independent of the project. Assessments must also be approved by the head of section. DFID is seeking to improve its quality control of project reviews by introducing independent validations of a sample of project assessments.

9 Key factors which aid sustainability

- Commitment and participation of the recipients, including cost or labour contributions
- Choice of appropriate technology
- Environmental matters including water resource management implications
- Attention to hygiene awareness and training
- Institutional capacity to retain commitment to initiatives
- Consideration of operation and maintenance issues
- Involvement of government at all levels
- Economic viability of interventions

Source: Drawn from a range of documents from DFID, World Bank and DANIDA

10 Two Regions Project, Ghana

(This is a different part of the project referred to in Figure 6)

Aim: The project included expansion of the treatment works at Barikese to provide an additional six million gallons of water per day for Kumasi.

Problems encountered: When carrying out the expansion works, DFID discovered that the local distribution system could take only fifty per cent of the extra water. DFID were not aware of this issue at the start of the project. Discussions with Ghana Water Company indicated that this was due to a lack of consultation with relevant stakeholders at the design stage. The output to purpose review also concluded that there was scope for improved communication and co-ordination between institutional stakeholders.

The problem was resolved some years later when the Ghana Water Company discovered a closed valve which had been restricting the water flow through the distribution systems.

11 DFID's project evaluation and review tools

Project Scoring: projects costing over £1 million must be scored at least once a year (except during the first two years if scoring would be premature).

Output to Purpose Reviews: usually conducted at the mid-point of a project's life to assess progress against objectives and to ensure assumptions remain valid.

Project Completion Reports: required for all bilateral projects with expenditure in excess of £1 million, to assess the extent to which planned outputs have been achieved.

Ex-Post Evaluations: completed for a selected number of projects some time after the completion of the project to assess wider impacts.

12 Public Health Water and Sanitation Programme Liberia Project (undertaken by Oxfam)

This was a two year project which was completed in 2002 at a cost of £271,000.

Goal: To improve the health of 40,000 people from 60 communities in Liberia

Objectives:

- Increased availability of clean water in 60 communities through the construction of 31 new wells and rehabilitation on 29 old wells
- Availability of sanitation facilities in 20 schools, 16 clinics and 4 market places
- Improved awareness and implementation of good health and hygiene practices
- Improved capacity to construct, use and maintain wells and latrines, and repair handpumps

Evaluation included the following impacts:

- **Comparisons of pre-intervention and post intervention health data** from seven clinics in target communities showed significant reductions in the reportage of all diseases, particularly water and sanitation related diseases such as malaria, diarrhoea and skin infections. The diseases reported have decreased by 54 per cent.
- Assessment of the **improved awareness and demonstration of good hygiene practices** resulting from 35 one-day workshops.
- Qualitative information from the community about **reductions in distances covered to collect water** and opportunities to spend the time on other domestic chores.
- Information was also collected about the **social and community benefits**, particularly for women, of having latrines.
- Assessment of the **increased number of people with access to water and sanitation**.
- Information on **community behaviour change**, including the number of water and sanitation committees established by the project and examples of some regular activities established.

1.19 The main purpose of project completion reports is to assess the extent to which the project goal and planned outputs have been achieved. Information is also required on likely sustainability, progress against time and budget, and lessons learned. We examined a sample of evaluations for water projects to assess DFID's approach and found that they covered the key areas listed above, with the exception of sustainability. To some extent this is because project completion reports must be completed within six months of completion, which is often too early to assess sustainable impacts which are achieved over a longer time period (paragraph 1.9). Project completion reports are not intended to assess the wider impacts resulting from individual projects although we found some examples of more extensive project evaluations, most often undertaken by project partners, which used a range of indicators to explore the wider impacts (Figure 12).

1.20 We also found that DFID has not always addressed fully the need to establish robust monitoring arrangements at the project design stage to enable an evaluation of impact. This is supported by DFID's *Development Effectiveness Report* which found that monitoring and evaluation weaknesses were mentioned in the majority of evaluation reports. One example was the Dowa Safe Water and Sanitation Project in Malawi, where the project evaluation recorded that monitoring systems set up in the design stage were not sufficient to record suitable outcomes for later evaluation. Accurate baseline information can be difficult to obtain given weaknesses in country-level information on water and sanitation access. Nevertheless, at the project design stage, evaluation criteria and appropriate monitoring procedures for measuring impact should be built in.

1.21 DFID also carries out a rolling programme of ex-post evaluations to assess the long-term sustainability and wider impacts of its projects in different sectors. The last evaluation in the water sector was undertaken in 1997. This report highlighted many lessons for project design which were reflected in DFID's guidance manual to assist country teams in planning water interventions. However, due to the wide range of its activities, DFID's evaluations can achieve only partial coverage in any one year. The absence of any follow-up evaluation on the water sector since 1997 means that little information is available concerning the wider impacts of DFID's interventions in the sector. Given this, there is scope for DFID to develop further its evaluations of individual projects to provide more information on wider impacts and sustainability, and to identify those factors which lead to a lasting beneficial impact.

Examples of the achievements of a

Toilets were not safe, unhygienic, had no hand washing facilities and were located far from the school.



before



Standpipes were in a poor state of repair and suffered problems of leakage and wastage of water.

DFID project (taken from a project in South Africa)



Toilets were built. They now had doors, were in better condition and were nearer to the school. This encouraged people to use the toilets. Health and hygiene practices were also encouraged.



after

The project encouraged people to conserve and maximise the use of water. The importance of cost recovery and the effect of vandalism were also taught.

1.22 DFID seeks to disseminate good practice using a range of approaches, including project evaluation summaries, the Development Effectiveness Report and via its intranet. DFID is seeking to improve its approach by speeding up dissemination and making greater use of workshops. Much lesson learning is also carried out informally and DFID seeks to facilitate this by holding periodic meetings of sector and regional advisers. But our country visits showed that country staff were not always aware of relevant work and approaches in other countries. Disseminating appropriate information in a concise and relevant manner is a difficult task for DFID given its geographically dispersed structure. There is scope for DFID to consider further its approach to knowledge management to address these issues.

The changing approach to the delivery of aid has implications for the water sector

DFID is increasingly providing aid through budget support

1.23 DFID is committed to changing the way in which it delivers aid from funding discrete projects to providing aid directly into the national budgets of partner governments. This approach, known as "budget support", aims to support partner governments in their implementation of an agreed poverty reduction strategy and the achievement of poverty reduction targets. DFID believes that progress towards the achievement of development outcomes is more likely to be made by helping partner governments to implement long-term poverty reduction programmes rather than funding isolated donor-led projects. Budget support is provided on the basis of agreed expenditure profiles and poverty priorities. Partner governments are expected to make improvements in their financial management systems and implement the activities needed to achieve targets.

1.24 In 2001-02 DFID provided £290 million of aid through budget support, some 18 per cent of its bilateral aid programme. The amount provided using budget support has doubled since 1998-99 and the number of countries entering into agreements has increased to 17. In 2001-02 nearly two thirds of budget support was disbursed in eight African countries although the largest single recipient was India. The nature of budget support means that it is not possible to establish an accurate sectoral breakdown of DFID's contribution in developing countries. However, DFID has reviewed the relative priorities in government poverty reduction strategies to estimate notional allocations to different sectors, and estimates that a very small proportion of its budget support funds are likely to have been spent on the water sector.

1.25 DFID believes, along with much of the donor community, that budget support offers the potential to bring real long-term developmental benefits for the poor, including:

- increased host nation ownership of development activity and a greater emphasis on poverty issues. By supporting the implementation of poverty reduction strategies, budget support aligns donor assistance with national poverty priorities and provides greater opportunity for wider donor dialogue on policy issues;
- increased pressure for improvements to host government financial management systems. Part of the rationale for using budget support is that development outcomes are likely to be improved if the partner government's public expenditure management systems are working effectively. Budget support focuses efforts on strengthening government systems; and
- increased opportunity for donors to harmonise their approach to aid disbursement and reduce the burden on host nation resources of meeting a range of donor requirements.

1.26 The International Development Committee endorsed the use of budget support in its report *Financing for Development (HC 1269, 2001-02)*, as shown in **Figure 13**. There is evidence that budget support has helped to contribute to the achievement of successful development outcomes in Uganda (**Figure 14**).

1.27 Compared with aid provided through projects, budget support creates a different set of risks as DFID is not directly responsible for the actual use of funds after they have been disbursed into partner government budgets. The effective use of budget support funds thus places greater reliance on the commitment and capacity of host governments to implement the necessary poverty reduction initiatives to deliver service improvements and achieve poverty targets. Risks exist at two levels: the risk that budget support funds are not used for the purposes intended and the risk that the partner government does not make effective use of funds to achieve poverty targets.

DFID is developing its approach to address the financial risks created by the use of budget support

1.28 As with all aid expenditure, it is important that DFID is able to provide reasonable assurance over the use of funds. DFID understands the risks inherent in the use of budget support and has responded by developing its central thinking on the approach to assessing and managing the risks. This has included close co-operation with the National Audit Office to develop

13 International Development Committee conclusion on budget support

"Ideally, and subject to an assessment of the risks involved and the requirement of accountability, aid is best provided through direct budget support. Aid delivered in this manner can be distributed nation-wide in pursuit of poverty reduction, rather than spent on isolated projects; it is also more likely to result in sustainable ongoing development. In addition, the injection of resources directly into a government's revenue stream minimises transactions costs, and helps to build the capacity of the recipients' systems for financial management and accountability."

14 Budget support has contributed to successful development outcomes

Uganda has achieved significant success in poverty reduction. An important factor has been the Ugandan Government's strong commitment to its Poverty Reduction Strategy (the Poverty Eradication Action Plan). DFID has been providing budget support for over ten years to assist the Ugandan Government in its implementation of poverty priorities. The amount of budget support provided has increased from £18 million out of £32 million in 1992-93 to £47 million out of £68 million in 2001-02.

Uganda has achieved positive development outcomes in a number of sectors. Although it is not possible to directly attribute achievements to donor assistance, DFID has supported the Ugandan Government in its approach. Key achievements include:

- a reduction in the proportion of its population living in poverty from 56 per cent in 1992 to 35 per cent in 2000;
- significant improvements in school attendance - the number of people in primary schools doubled between 1996 and 1998. Further, between 1998 and 2001, 20,000 classrooms have been built, an increase of over 50 per cent, and 30,000 primary school teachers have been recruited; and
- incidence rates for HIV/AIDS fell from 14 per cent in 1995 to 7 per cent in 2000.

15 Key principles for the implementation of budget support

- a thorough ex ante assessment of the risks to DFID funds, including the use of recognised diagnostic tools to evaluate public expenditure and accountability systems;
- agreement with partner governments of credible action plans to improve the standards of public financial management over the longer term;
- implementation of appropriate safeguards to address critical weaknesses and mitigate risks; and
- the development of robust monitoring arrangements to provide timely and reliable information on the partner country's progress towards poverty targets and implementation of action plans.

the safeguards that are needed to provide assurance over the use of budget support. As a result, DFID has established the key principles that country teams are required to follow before entering into budget support agreements (Figure 15).

- 1.29 On our country visits we found that country teams had carried out explicit risk assessments of the strength of government financial management and accountability systems. Country teams have also sought to support the provision of budget support by providing, as appropriate, technical assistance to improve governance and strengthen government systems. DFID has supplemented this by implementing safeguards to protect funds from misuse and provide feedback over the use of funds. This has included the use of tracking studies to provide assurance that funds are reaching poverty areas; budget monitoring to ensure funds are allocated in accordance with the poverty reduction strategy; and support to state audit institutions to provide robust and timely information on expenditure. The threat of corruption is also a concern. DFID is responding to this generally by seeking to promote better governance in developing countries. DFID is also taking more specific measures to support partner governments in their development of anti-corruption strategies and the implementation of measures such as new legislation or strengthening bodies to tackle cases of corruption. The range of safeguards is vital in strengthening accountability and improving transparency in the management of public finances.

There are a number of challenges to achieving development outcomes in the water sector

- 1.30 In developing countries, poverty reduction strategy papers are key documents in prioritising budget allocations. We examined a sample of seven poverty reduction strategies to establish how water issues have been addressed and drew on research carried out by WaterAid, the leading United Kingdom non-government organisation in the water sector. We found that all poverty reduction strategies recognised the importance of water in alleviating poverty and included targets for improving access to safe drinking water. But as Figure 16 overleaf shows, there are also a number of risks to the achievement of water targets and, in many respects, the approaches proposed in developing countries are not consistent with good practice adopted by donors (Figure 9).

1.31 The capacity of host governments to spend resources effectively is a key factor in improving coverage of water and sanitation facilities in developing countries. Many developing countries have decentralised government structures and, in the water sector, responsibility for service delivery is often devolved to regional or local government bodies, in which there is a greater risk of a lack of appropriate human resource skills (see text box). Furthermore, capacity is likely to be weaker in the poorest areas of the country where lack of access to water is likely to be most acute. WaterAid identified the lack of local government capacity in delivering services as one

A situation analysis of the rural water and sanitation sector in Uganda indicated:

"very low technical and functional capabilities at lower levels of government. Tendering, contract management, financial management and reporting were found to be under-developed, leading to substantial sector programme delays and under-utilisation of funds."

of the key risk areas in developing countries and believes that, unless this is strengthened, it will undermine efforts towards improving access to water and sanitation. These risks are demonstrated by a DFID review of the water and sanitation sector in Uganda, which illustrated that increased levels of funding in the water sector do not necessarily result in a corresponding increase in outputs (Figure 17).

DFID could give greater emphasis to addressing service delivery risks

1.32 There are many challenges in the water sector which, if not addressed, have the potential to undermine progress towards poverty targets and thus the effectiveness of aid provided via budget support. We have identified three areas that are important in supporting partner governments to deliver service improvements in the water sector.

Technical expertise is important in enabling DFID to engage fully at the sectoral level

1.33 The use of budget support changes the nature of donor involvement in developing countries and has implications for the resource and skill mix in DFID country teams; for example, there is an increased need to engage in high level policy dialogue with partner governments. At present, country programmes include a mixture of different types of aid mechanism and DFID employs a range of sectoral specialists to manage its assistance. Our country visits demonstrated the beneficial impact that DFID's staff have had in supporting government departments and government officials told us that they valued highly their contribution. The introduction of budget support has led country teams to re-appraise their resource requirements and led to a changing role for sector

16 Risks to the achievement of improved water and sanitation coverage

The National Audit Office reviewed seven poverty reduction strategies - Uganda, Ghana, Malawi, Tanzania, Rwanda, Kenya and Zambia - and drew on preliminary research from WaterAid. The following concerns were identified in some or all of the countries:

- funding allocations to the water sector not increasing;
- geographic focus is not in the areas of greatest need - for example, funds have been earmarked for urban areas when the majority of the needy live in rural areas;
- insufficient attention to sanitation issues;
- insufficient attention to water resource management issues; and
- lack of attention to maintenance needs and community involvement - factors considered crucial in achieving a sustainable impact.

17 DFID concerns over the approach to improving water and sanitation access in Uganda

The Government of Uganda is committed to improving access to water and sanitation and has set a target of universal coverage by 2010 for urban areas and 2015 for rural areas. Water sector resources have tripled between 1997-98 and 2000-01. However, a recent DFID review highlighted a number of concerns. These included:

- significant concerns over the capacity at lower levels of government, including minimal evidence that efforts are being made to mobilise communities to address operation and maintenance issues;
- inequitable distribution of funds to urban areas although 92 per cent of the population without access to safe drinking water live in rural areas;
- sanitation issues given much less attention than water;
- outputs, in terms of additional water points and sanitation facilities, have not increased in line with increased resources; and
- private sector capacity to provide services needs to be strengthened.

In response, DFID has implemented a project, with a total value of £5 million over the next four years, to assist the Ugandan Government in addressing these concerns. The project aims to improve the delivery of rural water and sanitation services by supporting the government's reform process through the provision of technical assistance and capacity building. This includes the development of a sector wide approach with Denmark and Sweden, the secondment of expertise to the Ugandan Ministry of Finance to advise on water and sanitation issues, and technical assistance to support other sector activities.

specialists. DFID needs to balance its new resource requirements with the retention of appropriate technical expertise, to maintain sufficient knowledge of the country's sectoral needs and to facilitate policy dialogue in individual sectors.

The provision of appropriate technical support is important in addressing capacity issues

1.34 Capacity issues vary at different levels of government. At a central level, the priorities are to identify the service improvements that are required; design plans and seek funding to effect improvements in coverage; and monitor progress towards agreed targets. At a local level, the focus is on developing and implementing detailed plans to address local water and sanitation needs. This creates the need for different skills and, as such, requires different types of donor assistance to address skill gaps. Our examination of the water sector indicated that DFID's assistance has predominantly been dedicated towards strengthening central government's accountability and monitoring capacity. These are vital issues in providing assurance over the use of budget support funds. Less attention has been given to addressing capacity issues at local levels of government, despite their responsibility for service provision and identified capacity weaknesses. Our consultation exercise also illustrated a belief that DFID could do more to strengthen capacity at lower levels of government. We noted that DFID is addressing such issues in Uganda by providing technical support to district government (Figure 17) but we did not seek to establish in this Report the extent to which this approach is being replicated in other countries. Other donors had undertaken specific projects to assess and strengthen local government providers in the water sector - in Uganda, the Dutch aid agency had assessed the capacity of water districts to manage funds and deliver services.

Improved donor co-ordination provides greater assurance over the use of funds

1.35 Under a project-based approach DFID's country teams have generally focused on a limited number of sectors in order to maximise the effectiveness of their assistance. Budget support creates the need for donors to have an overview of government progress in all key poverty areas. However, neither DFID, nor any individual donor, can be expected to take the lead role in all sectors. Budget support offers the opportunity for improved donor co-ordination and for different donors to take the lead role in different sectors in order to improve the efficiency of working practices, gain assurance over the use of funds across a wider range of sectors and reduce the burden on partner governments.

1.36 Donor inputs into the water sector have traditionally been through discrete projects, which increases the risk that donor assistance is uncoordinated. Sector-wide approaches have been more common-place in other sectors, such as health and education, suggesting that there is scope for improved donor collaboration in the water sector. We noted that a sector-wide approach in the water sector was being developed in Uganda, based on collaboration between DFID, Denmark and Sweden. The aim is to harmonise reporting requirements and develop an effective joint-donor approach to addressing the water needs of Uganda.

DFID monitors budget support agreements continuously and at a number of levels

1.37 Monitoring and evaluation play a key role in providing assurance that aid provided via budget support is being used for the purposes intended. DFID has sought to undertake monitoring at three levels:

- the collection of timely and robust information on host government expenditure;
- the progress made against joint donor-government action plans to take remedial action to address weaknesses in government systems; and
- the progress made against agreed poverty reduction targets. The on-going provision of budget support is dependent on achievements against a range of outcome-based poverty indicators. DFID is seeking to work with partner governments to ensure the availability of robust and reliable performance information to measure such progress. In many countries, host nation progress has not yet been tested as budget support is still in relatively early stages.

1.38 Country teams monitor developments in partner countries on a continual basis. We noted that DFID has suspended budget support on a number of occasions due to inadequate progress on poverty reforms or doubts over the continued commitment of partner governments. Increasingly, DFID, and other donors, will expect partner countries to make demonstrable progress towards poverty targets and the lack of progress or inadequate information will raise issues for DFID in considering the on-going use of budget support. We therefore considered how DFID is seeking to ensure that appropriate information is available to monitor performance at the country and sector level.

Evaluating the impact of DFID's assistance at the country level is challenging

1.39 All donors face the same difficulties of establishing the causal link between their assistance and the achievement of outcomes because of the numerous other factors and organisations that have an influence on development work. The National Audit Office report on *Performance Management* concluded that it is virtually impossible for an individual agency to isolate its impact on global or country level trends in meeting poverty targets.

The lack of good quality data makes it difficult to assess the impact of DFID's assistance at the country level

1.40 Evaluation of development assistance needs to be based on data of appropriate quality. However, DFID's ability to provide a reliable view of its performance has been constrained by poor quality data. The lack of good quality data is a characteristic of weak statistical systems in poor countries and DFID recognises that there are problems with the availability, reliability and timeliness of data for monitoring progress on development outcomes. In the water sector we found a wide variation in the availability of water-related information and, in many countries, little accurate information exists on the state of water resources or whether water sources are operational.

1.41 Donors and host governments are seeking to improve the availability of robust and reliable data against which to measure country progress towards poverty reduction. In particular, country poverty reduction strategies set out plans to strengthen country monitoring and evaluation arrangements, and establish the information that will be collected at the sector level. DFID has supported these efforts through the provision of budget support and, in some cases, by providing technical assistance to strengthen the capacity of partner governments or funding specific projects to collect information. For example, a statistics adviser was seconded to the Ugandan Bureau of Statistics on a part time basis to assist the partner country in developing the capacity to monitor progress against its poverty reduction strategy.

But there have been few attempts to-date to evaluate country level impact of DFID assistance in the water sector

1.42 To-date DFID has sought to evaluate its country level performance through its annual assessment of country programmes. Such assessments provide feedback on DFID's achievements against the country strategy but have not often sought to evaluate the country's progress in meeting sectoral poverty targets, or DFID's contribution to this. The *Performance Management* report found that country assessments were largely restricted to input indicators and performance assessment was largely qualitative in nature. On our country visits we found that DFID had not always sought to evaluate the contribution of its water programmes to the host country's progress in improving access to water and sanitation. But DFID is seeking to develop its approach in this area. In Uganda, DFID, the Danish and Swedish aid agencies have jointly commissioned an evaluation of donor assistance in the water sector to establish the progress achieved towards its water targets and donor contribution to it. DFID is also directing more resources towards sectoral and country evaluations to provide greater feedback on its contributions to poverty reduction.

Part 2

DFID's involvement in the water sector in developing countries is relatively modest

- 2.1 DFID's bilateral aid programme represents a major element of its contribution towards the Millennium Development Goals. In 2001-02 DFID disbursed £1.6 billion of aid through its bilateral country programmes and 24 countries had programmes of over £10 million. Within this, DFID's financial contribution to the water sector is relatively modest and has averaged four per cent of the bilateral programme over the last five years. Part 1 of the Report evaluates the impact of DFID's interventions in developing countries but it is also important to consider how the focus of country assistance is decided. In this Part of the Report we examine how DFID designs its country programmes and decides on the scale of its contribution to the water sector in different countries.
- 2.2 To put DFID's activities in the water sector in context, it is important to note that DFID does not seek to do everything everywhere and that country teams have to balance competing priorities in deciding the focus of their programmes. We found that the key driver in determining the focus of country programmes was the poverty priorities of partner countries. The resultant country programmes are consistent in their aim of the elimination of poverty. In the water sector, there are relatively few strategic DFID programmes. This gives rise to the concern that not all country programmes give due weight to the water sector. But greater involvement in the water sector would have to be at the expense of assistance in other sectors and DFID has afforded water a relatively low priority compared with, for example, the health and education sectors.
- 2.3 DFID has adopted the achievement of the 2015 Millennium Development Goals as its high level targets and sets out its key objectives for the next three years in its Public Service Agreement. These are the key drivers of DFID's work. The Millennium Development Goals provide a global consensus on the objectives for
- tackling poverty in developing countries and, in effect, set the agenda for DFID's country teams. They include a target for improving access to safe drinking water. Participating governments also agreed to the adoption of an equivalent target for access to adequate sanitation at the World Summit for Sustainable Development in Johannesburg in 2002. But improving access to water and sanitation is afforded a relatively low level of priority by DFID. The 2001-04 Public Service Agreement prioritises the health and education sectors. A lower level target for water was included in the Service Delivery Agreement under the objective for improving healthcare ([Figure 18 overleaf](#)). The new 2003-06 Agreement is effective from April 2003 and does not include a target for the water sector.
- 2.4 We examined the level of DFID's water expenditure in the ten countries for which the 2001-04 Public Service Agreement set a water target. This showed that three countries were maintaining their existing level of commitment until 2003-04 (Bangladesh, India and Uganda), five countries were reducing their commitment to the water sector (Kenya, Malawi, Pakistan, South Africa and Tanzania) and two were ending their direct involvement within this period (Ghana and Zambia). DFID has since re-designed its Public Service Agreement for 2003-06 to strengthen the link between the Millennium Development Goals and its country programmes. The new Public Service Agreement articulates how regions and individual countries will contribute towards the achievement of the Millennium Development Goals. In particular, outcome targets and indicators have been set for individual regions - Africa, Asia and Latin America - and regional directors are held directly accountable for their achievement. Targets will also be cascaded down into personal objectives for operational staff to encourage alignment between individual workplans and higher level objectives.
- DFID's country programmes are developed within a framework of high level targets

18 DFID's high level targets in the water sector

Level	Aim	Water and sanitation targets
Millennium Development Goals	Set DFID's long-term targets. There are 8 Goals and 18 associated targets focussing on key global poverty objectives.	<i>To halve by 2015 the proportion of people without access to safe drinking water</i> Agreed at the World Summit for Sustainable Development, 2002: <i>To halve by 2015 the proportion of people without access to adequate sanitation</i>
Public Service Agreement	Sets out DFID's highest priority objectives and performance targets over the succeeding three years in order to measure progress towards Millennium Goals. The 2001-04 Agreement included four key objectives and 23 associated targets. The Service Delivery Agreement sets out in more detail what DFID will have to do achieve its targets. It focuses on DFID-specific inputs.	The 2001-04 Service Delivery Agreement includes a target under the health objective: <i>"to develop and implement strategies focused on improving access to safe water and sanitation in at least 8 of the top 10 recipients of bilateral healthcare"</i>

DFID's water expenditure represents a small proportion of its assistance in developing countries

2.5 DFID publishes details of its aid expenditure annually. **Figure 19** shows that expenditure on water and sanitation over the last five years has been broadly constant in absolute terms but has fallen as a proportion of the bilateral aid budget.

2.6 The water expenditure in Figure 19 relates to projects in which addressing water and sanitation is the predominant aim of the project. DFID also addresses water issues as part of projects where, for example, the primary aim is to address health or education issues. As a result, the level of spend in Figure 19 understates DFID's expenditure in the water sector. Over the last three years DFID has undertaken a more detailed analysis of all projects to determine its total water-related expenditure. This showed that total water

expenditure was £82 million in 1999-00, £91 million in 2000-01 and £87 million in 2001-02. This includes expenditure on all aspects of water including emergency assistance and thematic international programmes with no specific benefiting country. DFID's analysis shows that £73 million of water expenditure in 2001-02 was disbursed as part of bilateral country programmes. Nearly half of expenditure was in Asian countries and nearly one third was in Africa (**Figure 20**). DFID also spent £14 million in support of a range of key international bodies in the water sector (paragraph 3.2).

2.7 There are many bilateral and multilateral donor bodies active in the water sector and DFID has estimated that annual funding by all donors is approximately £5.7 billion per annum. Of this, bilateral funding is estimated to be around £2.3 billion per annum with Germany and Japan being the biggest contributors to the sector. Of the multilaterals, the World Bank, the European Union and the regional banks of Asia, Africa and America are the largest funders. However, total

19 DFID's water expenditure between 1997 and 2002

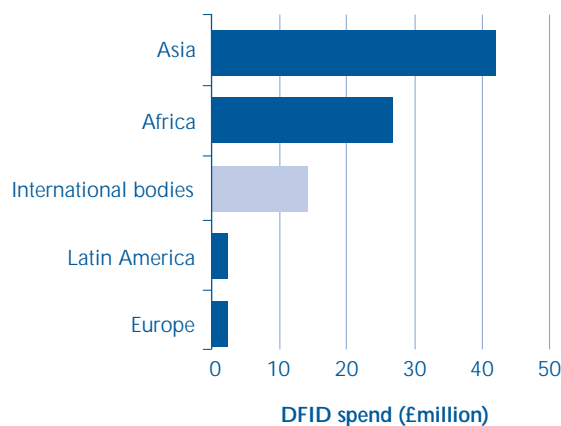
	1997-98	1998-99	1999-2000	2000-01	2001-02
Water and sanitation spend (£ million)	37.1	30.1	36.4	34.3	33.8
DFID bilateral aid (£ million) ⁽¹⁾	758	783	851	879	964
Proportion of bilateral aid spent on water	4.9%	3.8%	4.2%	3.9%	3.5%

NOTE

- 1 This refers to aid allocable to individual sectors, such as health, education and water. The remainder of the bilateral aid programme covers projects or programmes which cannot be disaggregated by sector and includes budget support and humanitarian assistance. Over this period, expenditure unallocable by sector has increased from £284 million to £543 million.

Source: Statistics on International Development 1997/98 - 2001/02

20 The large majority of DFID water expenditure in 2001-02 was on country programmes



Source: DFID data

donor funding to the water sector is significantly lower than current estimates of that required to meet the targets set by the Millennium Development Goals. The Global Water Partnership estimates that up to an additional US \$30 billion of funding per annum is needed (paragraph 3.5).

- 2.8 DFID's water expenditure is significantly less than some other donors in absolute terms and as a proportion of its total aid expenditure. For example, DFID has the fifth largest bilateral programme compared to other European donors but its water expenditure as a proportion of development assistance was 3.5 per cent in 2001-02 (Figure 19), compared with an average of 6.6 per cent for member countries of the Organisation for Economic Co-operation and Development (OECD). International comparisons of aid allocations need to be treated with considerable caution due to inconsistencies in reporting methods. DFID and other bilateral donors are currently seeking to address this issue and collect more accurate information as part of the European Union Water Initiative, which was launched at the World Summit for Sustainable Development in 2002. As part of this, the British Government has responsibility for developing a financial strategy for the Initiative and, as a first step, is seeking better information on donor spend in the sector.

DFID does not have many significant country programmes in the water sector

- 2.9 DFID's analysis showed that it had water expenditure in 72 countries in 2001-02, of which 12 spent over £2 million and 30 spent less than £100,000. The largest water programme is in India where expenditure was £14 million. But DFID's assistance to the water sector in each country generally forms a relatively small element of total donor funding. For example, Uganda was DFID's sixth largest water programme in 2001-02 but

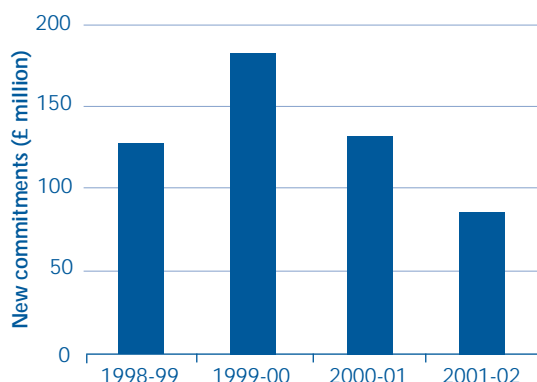
DFID commitments to the water sector have averaged between three and six per cent of bilateral donor commitments over recent years. In South Africa, the European Union, Dutch and Irish are supporting a major co-operative programme in the water sector. The donors provide 20 per cent of funding, with a total annual contribution of approximately £17.2 million. By comparison DFID's support to the water sector was £1.7million in 2001-2002.

- 2.10 In 2001-02 DFID had 691 projects with some element of water expenditure. DFID's analysis shows that there were relatively few major projects aimed at providing long-term strategic assistance in the water sector and in 2001-02 there were eight projects which spent over £1 million to improve access to water and sanitation. The total value of these eight projects was £13.9 million, some 16 per cent of DFID's water expenditure. As shown in Figure 2 on page 9, the large majority of DFID's water projects are less than £100,000 in value.

New commitments to the water sector are declining

- 2.11 DFID's water projects generally run for a number of years, which means that the value of live projects is significantly greater than annual expenditure. In 2001-02 DFID estimated that the value of the water-related commitment in live projects was £521 million, of which nearly two-thirds was in Asian countries. Historically, actual expenditure on projects has not reached the level of the original commitment. This may be due to changing circumstances in-country leading to a re-prioritisation of country resources or projects being stopped. In such cases, this course of action may represent a prudent decision by DFID.
- 2.12 In 2001-02 DFID approved 127 new projects with some element of water expenditure. This represented a commitment of £86 million. The level of new commitments in the water sector reached a high of £182 million in 1999-2000 but has declined in the each of the last two years (Figure 21 overleaf). There are also wide variations between Africa and Asia. Water commitments in Asia are largely sustained for the next five years but there is a rapid rate of decline in African countries due to the low level of new commitments. As a result, the level of live water commitments in Africa has fallen from 30 per cent of total DFID water commitments in 2000-01 to 20 per cent in 2001-02. There are a number of reasons for the declining commitment to the water sector, including the increasing use of budget support, a rationalisation of the number of DFID projects and, in some countries, withdrawal from the sector as country teams seek to narrow the focus of their assistance. To some extent, the decline in bilateral commitments may be partially offset by the increased use of budget support, a proportion of which will contribute towards the water sector. Further,

21 New commitments to the water sector have declined since 1999-2000



Source: DFID analysis of water expenditure

this analysis does not take account of DFID's contribution to the water sector through its funding to multilateral organisations (Part 3).

2.13 At the 2000 World Water Forum in the Hague, the Secretary of State made a commitment to more than double DFID's bilateral contribution to the water and sanitation sector over the following three years. This commitment was made on the basis of an analysis showing that expenditure was £50 million in 1998-99. As shown in Figure 21, new commitments to the water sector increased in 1999-00 but have since fallen back.

DFID's focus has predominantly been on improving access to water and sanitation

2.14 To date, DFID's involvement in the water sector has focused largely on improving access to water and sanitation and in 2001-02 accounted for approximately three quarters of water expenditure. Over recent years there has been a growing recognition amongst the international development community of the importance of sanitation, water resource management and the need to ensure the availability of water to grow food. In the countries we visited we found that DFID was prominent in raising the profile of sanitation and water resource management issues. For example, we noted that DFID involvement in Uganda led to improved co-operation between the three ministries responsible for sanitation. In South Africa, DFID was important in raising the profile of sanitation through the provision of technical support to the government. This approach was praised by other donors and partner governments in the countries we visited.

2.15 Sanitation is now included as an integral element of many water projects but the other water sub-sectors, in particular water for food issues, have not yet been fully reflected in DFID's interventions in developing countries. Our consultation exercise also highlighted that there is scope for DFID to give greater emphasis to water for food and water resource management issues in its projects (see text box). In 2000-01 DFID expenditure on water for food and integrated water resource management each totalled ten per cent of its water expenditure. To some extent this may reflect the lower cost of water resource management interventions, which normally comprise few infrastructure elements. DFID also told us that other donors such as the Japanese and the regional development banks have a comparative advantage over DFID in building large scale irrigation schemes which address water for food issues.

"Water for food, a sector which accounts for 70 per cent of many developing countries' water use, and is seen by governments as essential for rural stability and national food policies, generally falls between two stools at DFID country level, being seen as neither straightforward infrastructure nor natural resources"

Source:
NAO consultation exercise



An example of sanitation facilities funded by DFID in South Africa.

The poverty priorities of developing countries are the key driver in determining the focus of country programmes

2.16 Country teams have a high degree of autonomy in deciding how resource allocations will be spent. Each team is responsible for analysing the poverty needs of the partner country and for preparing a country strategy detailing the proposed focus of DFID's assistance and the method of aid disbursement. The proposed programme is approved by the DFID's senior management and ministers who seek to balance the need to contribute towards the Millennium Development Goals with the poverty priorities of the country.

Country planning is informed by a range of strategy papers

2.17 On our country visits we found that DFID considered the focus of its country programmes within the framework set by the Millennium Development Goals. The resulting programmes are consistent in their aim of the elimination of poverty and make a positive contribution towards DFID's high level objectives. The wide range of targets set by the Millennium Goals means that country teams have substantial scope to determine the focus of their programmes. DFID has published a series of strategy papers to assist staff in country planning, including one in the water sector "*Addressing the Water Crisis*". Target strategy papers set out DFID's high level thinking on how to achieve the Millennium Development Goals and, in doing so, aim to inform staff on the priorities and methodologies that they should consider when developing country programmes. Replies in our consultation exercise acknowledged the quality of the water strategy paper and, on the whole, praised the approach that is advocated. Our discussions with country teams revealed that DFID's water strategy paper was used as a reference point when designing water programmes. We noted that the Asia regional department had also sought to raise awareness of the importance of the water sector by producing a paper reviewing its country interventions in the sector.

Country programmes balance competing sectoral priorities

2.18 DFID does not operate in all sectors in all countries and seeks to achieve an effective use of its resources by focussing its assistance in sectors in which it judges it will have greatest impact. Country teams are therefore required to balance competing sectoral priorities to decide the focus of their programmes. We found that the key factors considered by country teams were:

- **Alignment with the poverty reduction priorities of the partner country.** DFID is increasingly seeking to align its assistance with host nation poverty reduction strategies. For example, the current five year national plan in India identifies water and sanitation as the priority sector and the Indian Government is committed to achieving full coverage in sanitation. DFID's significant investment in India complements this approach, including the Child's Environment Sanitation Project which has a commitment of £17.5 million (Figure 8). Government commitment was considered to be a pre-requisite to DFID's involvement and country teams placed much emphasis on designing programmes that were consistent with government strategies.
- **The extent of other bilateral and multilateral donors' involvement in each sector.** DFID assesses whether it has any specific knowledge or experience in the sector which would lead to a comparative advantage over other donors. A country team may choose not to operate in a sector if a number of other donors are already active or it has little previous involvement or experience in the sector. For example, in Ghana, DFID is considering the extent of its involvement in the water sector because the sector is already well covered by other donors with a long-standing involvement.

2.19 Our country visits demonstrated that decentralising decision-making has many benefits, including the opportunity to make country programmes responsive to local needs. But we also found that there was some variation between country teams in their approach to determining the sectoral focus of programmes. In particular, varying use was made of assessments of local water needs to inform country planning. In Uganda, a country-level water assessment was last carried out in 1998 (Appendix 5) and in Ghana, a country-level assessment of needs has not been undertaken since 1995 to inform the country team's consideration of its involvement in the sector. In India, we noted that a detailed water needs assessment and situation analysis for each of DFID's four partner states (West Bengal, Andhra Pradesh, Madhya Pradesh and Orissa) was used by the country team in deciding the focus of DFID's programme in each state. In each of these countries, DFID's water and engineering advisers have drawn on

their knowledge of the country circumstance to determine the focus of assistance in the water sector and, in each case, this was agreed with the government.

2.20 The host nation government plays an important role in co-ordinating donor assistance to contribute towards the country's water needs. We saw in South Africa that the Government Water Ministry assessed how individual donor interventions could best contribute to the country's development plans. However, not all developing countries necessarily have the same level of capacity to play such a role. In these cases, the onus is on the donors to work in partnership to ensure that development assistance is best directed towards addressing the country's needs. A country-level assessment of water needs and a development plan can help in co-ordinate donor assistance and ensure that it is directed to areas of greatest need. It is not necessary for DFID to carry out such assessments itself if it can rely on those carried out by other donors or the host nation government. Our country visits indicated a trend towards greater donor collaboration and in most cases the level of donor liaison was generally considered to be good, although there was still thought to be scope for improvement. DFID has sought to work in partnership with other key donors or non-government organisations but, in some cases, donors commented that there was scope for wider co-ordination with the full range of bodies active in the sector. We noted the development of a sector-wide approach in Uganda, which offers the opportunity to improve donor co-ordination (paragraph 1.36).

2.21 In the course of our country visits we also found that DFID's sectoral expertise in a country team was a key factor in ensuring that DFID's assistance was relevant to that country's needs. DFID employs advisers to manage its sectoral programmes and our country visits showed that the technical expertise of water advisers was valued highly by partner governments. The staffing needs of each country team are driven by DFID's development priorities and consequently DFID does not employ advisers across all disciplines in each country. As water is a relatively low priority in many DFID country programmes, there is not always a water or engineering adviser resident in country teams. In such cases, it is more difficult to ensure that the needs of the water sector receive due consideration in country planning. In other sectors that are given a higher level of priority, such as governance, DFID has increased its expertise in country teams. DFID also employs regional engineering advisers, whose responsibility includes oversight of water country programmes but we found that limited use was made of such expertise in the design of country programmes.

2.22 In 2002 DFID introduced a revised approach to country planning. The aim is to ensure that proposed interventions are explicitly linked to the Public Service Agreement and, thus, the Millennium Development Goals. The key philosophy is that DFID will work as part of the international development effort to support countries in achieving their poverty targets and country teams will produce plans setting out how they intend to support the host nation's own development plans. This is intended to encourage a wider, more rigorous analysis of the opportunities for DFID involvement as country teams will be required to justify more explicitly the focus of their assistance and demonstrate the contribution of their proposed approach to poverty reduction. The National Audit Office welcomes these changes and encourages DFID to ensure that they are applied consistently by country teams.

DFID's overall bilateral contribution to the water sector is the aggregate of its country programmes

2.23 The feedback in our consultation exercise, from organisations and individuals engaged in the water sector, revealed concerns that water is not always given appropriate emphasis in DFID country programmes. A typical view was that DFID's global policy level commitment to the sector is not translated into action in country programmes. A number of organisations considered that there was a mismatch between DFID policy statements and the activities of country programmes.

2.24 We reviewed the extent of DFID's involvement in the water sector in the 20 countries with lowest levels of water access and found that there was little correlation between DFID spend and countries with the greatest water need. **Figure 22** shows that DFID had bilateral aid programmes of over £10 million in seven countries (in bold in Figure). Water expenditure represented 13 per cent of the country programme in Kenya but was six per cent or less in other countries. DFID is providing budget support to six of these seven countries - the exception is Nigeria - and thus a proportion of these funds will also be allocated to the water sector in line with national poverty reduction priorities. DFID does not have significant bilateral country programmes in the other 13 countries, although a number of these have recently been conflict-affected (for example, Afghanistan, Angola and Congo) and DFID's assistance is more likely to be focused on humanitarian assistance. In five countries where DFID disbursed over £1 million of aid, the water programme is a significant proportion of DFID's involvement in country (Ethiopia, Angola, Burkina Faso, Vietnam and El Salvador).

22 DFID aid programmes in the 20 countries where water and sanitation needs are greatest

Country	Percentage of population with access		DFID spend (00-01)		
	Water %	Sanitation %	Country programme £million	Water allocation £million	Proportion of spend on water %
Afghanistan	13	12	0.1	-	-
Ethiopia	24	15	1.7	1.0	57
Sierra Leone	28	28	35.1	0.7	2
Cambodia	30	18	4.4	0.6	12
Angola	38	44	1.8	1.3	69
Rwanda	41	8	32.8	-	-
Burkina Faso	44	29	0.2	0.1	50
Congo	45	20	3.1	0.8	25
Haiti	46	28	0.1	-	-
Eritrea	46	13	0.2	-	-
Madagascar	47	42	0.6	0.1	11
Kenya	50	86	47.4	6.1	13
Uganda	50	75	83.3	2.9	3
Tanzania	54	90	67.0	1.7	3
Vietnam	56	73	4.4	1.1	25
Mozambique	56	44	29.9	1.8	6
Nigeria	57	63	15.8	0.5	3
Niger	59	20	0.2	-	-
El Salvador	59	68	1.8	0.7	39
Cameroon	62	92	2.3	-	-

Source: Analysis of DFID data and published statistics on access to water and sanitation

2.25 At the country level, DFID's involvement in the water sector is subject to the country planning approach set out above. This seeks to strike an appropriate balance between the competing demands of different sectors for a finite allocation of resources. Given this, greater DFID involvement in the water sector in any country would have to be at the expense of the assistance which DFID provides in other sectors in that country. Although our discussions with DFID staff and other organisations indicate that there is scope for greater involvement in the water sector in some countries, the same case can be made for other sectors.

2.26 At a global level, DFID seeks to contribute to the Millennium Development Goals by addressing the national poverty needs in developing countries. The Goals are shared global goals and no single donor can meet the targets alone. Progress against poverty targets is thus dependent on a joint effort by the international development community. To facilitate this, DFID is increasingly seeking to support national governments in their achievement of development outcomes. Meeting the poverty needs of individual countries takes precedence over the need to contribute to any single target as set by the Millennium Development Goals. DFID seeks to minimise central double-guessing of proposed country programmes although ministers have intervened on occasions to ensure sufficient emphasis on DFID's priorities.

Part 3

DFID is highly influential in its international role but there is scope for a more effective use of its research

3.1 Assessments of DFID's contribution to individual sectors must be seen in a wider context and take into account its role in influencing the international development community. DFID seeks to influence the wider donor community in order to achieve its objectives by focusing international attention on the elimination of poverty and, in this case, addressing the global water crisis. In preparing this part of the Report we examined the effectiveness of actions taken by DFID centrally to promote the importance of water through partnerships with key bodies, support of international conferences and initiatives, and its research programme. We concluded that DFID is a prominent and influential participant within the international development community, both in respect of its advocacy role at key conferences and its contributions to international water initiatives. We also found that the water Knowledge and Research programme makes a useful contribution to global awareness in the water sector, but there is scope to improve the uptake of research.

DFID undertakes a range of activities within the international development community to promote the importance of the water sector

DFID has been proactive in developing partnerships with other key players

3.2 The development of partnerships with key players in the water sector is important to increase DFID's opportunities for strategic policy dialogue with host governments and to encourage a coherent international donor approach. We sought views on DFID's approach as part of our consultation exercise and during our discussions with other donors and partner governments. We found that DFID has been proactive in seeking partnerships with a wide range of different bodies in the water sector, including multilateral institutions, host governments and non-governmental organisations:

- DFID provided £1.3 billion of funding to multilateral institutions in 2000-2001 (see text box) and works in partnership with key multilateral institutions with a significant role in the water sector, such as the World Bank and the European Union. For example, DFID is committed to handling the financing strategy of the European Union Water Initiative, which aims to improve co-ordination between countries, encourage regional investment and co-operation, and to consider the balance between environmental concerns and use of water in continued economic and agricultural development.

DFID's funding to Multilateral Institutions 2000-2001

European Union	£761 million
World Bank	£263 million
Regional Development Banks	£63 million
United Nations and Commonwealth	£132 million
Others	£118 million

- DFID has been proactive in developing partnerships with recipient governments and has participated in initiatives such as the Nile Basin Initiative. This provides an agreed inter-country framework to fight poverty and promote economic development, guided by the vision "to achieve sustainable socio-economic development through the equitable utilisation of common Nile basin water resources".
- DFID maintains high level contact with non-governmental organisations through consultation and policy discussion, and has entered into partnership agreements with key players such as WaterAid. These agreements set out at the strategic level how partners will work together to meet the Millennium Development Goals.

- DFID co-ordinates with other United Kingdom government departments with an interest in water, principally the Department for the Environment, Food and Rural Affairs and the Environment Agency, to ensure a mutually consistent approach. Our consultation exercise indicated that DFID was largely successful in this, but suggested scope for greater sharing of expertise from other Departments.

DFID has a high profile role amongst the international development community

3.3 DFID has had a high profile role in organising and attending key global conferences and events in recent years, including the Second World Water Forum at The Hague in 2000, and the World Summit for Sustainable Development in Johannesburg in 2002. These international conferences provide the basis for gaining

"DFID is proactive as a player in the international water sector... it has been very visible at international conferences"

"DFID is active in the promotion of targets such as those for drinking water, sanitation and water resource management"

Source: NAO
consultation exercise

donor consensus in approach and in the formulation of global policy in the water sector. DFID seeks to obtain influence over outcomes through its involvement. For example, DFID had advocated the adoption of a sanitation target equivalent to that of the water target (Figure 18) for some time and this was achieved at the World Summit for Sustainable Development in 2002. The internationally accepted objectives for water, sanitation and water resource management are now aligned with those in DFID's own water target strategy paper. Feedback from country visits and our consultation exercise also indicated a general consensus that DFID is highly regarded within the international community for its advocacy role and strong commitment to international initiatives.

DFID contributes funding and expertise to international water initiatives

3.4 In addition to its funding to multilateral institutions, DFID has made financial and intellectual contributions to major international initiatives, which aid in the achievement of its objectives (Figure 23). DFID has supported

"DFID's generous support of international bodies in the sector - and for international conferences, has given DFID a prominent place at the table"

Source: NAO
consultation exercise

and co-funded several international bodies in the water sector. These play a key role in influencing governments of developing countries as well as in forming global policy (Appendix 6). DFID has also sought to influence water policy through participation in or funding of other initiatives to reflect issues such as the availability of reliable information and private sector participation.

3.5 Given the magnitude of the global water crisis and the consequent funding requirements, DFID is increasingly seeking to support innovative approaches to achieve a greater impact in the water sector. Estimates of the total capital investment needed to achieve the Millennium Development Goals vary widely depending on the particular aspect of the water sector included in the estimation. The Global Water Partnership has estimated that in addition to current investment levels, up to a further US\$30 billion per year is needed to achieve the goal. DFID and other donors are thus seeking innovative methods of reaching a greater number of people through existing levels of investment. Our consultation indicated that one reason for DFID's high regard is its willingness to provide significant support to a wide range of activities and initiatives, implemented by a range of bodies in the sector.

23 International programmes contribute in a number of ways to the achievement of DFID's objectives

- Reinforcing consensus around water issues and encouraging consistent approaches
- Developing advocacy role with host government policy
- Commissioning and disseminating knowledge and research
- Advocating policy change through influence and respect at global level
- Highlighting priority issues such as sanitation
- Supporting governments with the development of policy and initiatives
- Addressing trans-boundary issues and conflicts over allocation, rights and access to water

DFID has made improvements in the dissemination of its research but there is scope to improve uptake

3.6 The 1997 White Paper *Eliminating World Poverty (CM3789)* recognised the importance of knowledge to achieving DFID's objectives. DFID has a centrally-led Knowledge and Research programme, which aims to generate better knowledge to inform its, and the wider development community's, approach to tackling development issues such as water. As part of this programme, DFID spent more than £100 million in 2001-02 on development-oriented research, of which some £3 million was spent on water-related research. There were 60 ongoing water research projects in 2000-01. We reviewed how effectively the research was disseminated and used by others, to assess the success of the water Knowledge and Research programme in contributing to global water knowledge.

3.7 DFID uses a wide range of methods to disseminate its research including workshops, its intranet, key internet sites such as the Global Applied Research Network and a research dissemination service, the compilation of a research catalogue, and a quarterly water publication. In addition, a good dissemination plan is one of the key criteria for DFID approval of research proposals. DFID has undertaken two evaluations of the dissemination and uptake of its Knowledge and Research outputs in the water sector. These reviews found that there was scope for improvements in dissemination and that country teams were not always aware of available research. Our consultation exercise and discussions with country teams were consistent with these findings. In response, DFID has invested significant effort to improve dissemination.

3.8 The National Audit Office is currently undertaking an exercise which looks at the use of research in making policy decisions. This evaluates the effectiveness of dissemination arrangements in three government departments, including DFID. In the course of this work we found that DFID's internet dissemination service - *Information for Development in the 21st Century* - (www.id21.org) represented good practice. This service, which communicates development research findings to policy makers and practitioners, is receiving an average of 275,000 hits each month. To improve further its approach, DFID is also proposing to allocate a greater specific proportion of each study budget to dissemination activities.

3.9 DFID's research programme is intended to generate knowledge and expertise for a wider international audience than solely DFID country teams. This creates challenges for DFID in monitoring the use of research after completion. In addition, given the nature of research, not all projects would be expected to generate applicable lessons, and it can take some considerable time for research results to be adopted and used. This means that available information on the use of research is limited. DFID's research evaluations (paragraph 3.7) used reviews of uptake carried out by a small number of research organisations. This found that 40 per cent of the sample of projects had resulted in some direct uptake and 35 per cent resulted in further research or a publication. But the evaluations also found that there was scope for wider uptake of some projects, which may also provide the basis for closer collaboration between donors.

3.10 We also consulted the research organisations which are used by DFID on a regular basis. These bodies have sought to assess the use made of their research and they estimated that one quarter of their research projects have resulted in some uptake, such as the wider use of project outputs by partner governments, other donors or DFID country teams. They identified some successful projects, but also reported unrealised potential and opportunities for greater uptake, both within and outside DFID (Figure 24). The key success factor appeared to be whether a project has a champion to promote its benefits.

24 There has been mixed success in the uptake of research projects

Water Resources Planning, China

This research was carried out by HR Wallingford, and led to the establishment of part of the China Water Sector Development Project. The critical factor was that the Chinese Government became aware and was convinced by the research results.

Productive Water Points, Zimbabwe

This research was carried out in 'dryland' areas of Zimbabwe and led to the design of communally-managed water points to provide water for domestic and economic needs. The project was widely recognised in DFID as a success and led to substantial benefits for local communities. However, despite its widespread applicability, the technology has not been adopted by other countries and did not result in significant take-up.

3.11 We found that the reasons for a lack of uptake of DFID's research findings were:

- a poor level of awareness of the research and its potential uses due to inadequate dissemination;
- perceived lack of relevance of research, or scepticism of its applicability to the country circumstance;
- lack of funding to assist in the adaptation of the research to individual circumstances; and
- unclear lines of responsibility for uptake within the Knowledge and Research process, together with the lack of reporting by research organisations on uptake have led to a lack of emphasis in this area.

3.12 DFID has sought to improve the uptake of research. It is commissioning a study to examine further the uptake of research outputs and has established a Resource Centre to develop a strategy to improve the take-up and developmental impact of research. In addition, the link between country teams and the focus of research is being strengthened through closer involvement of country teams in the research selection process.

Appendix 1

Study methodology

Fieldwork Visits to Country Teams

1 A key component of our fieldwork was visits to DFID country offices. The purpose was to develop a better understanding of the water issues in each country, the approach of country teams to designing country programmes and balancing competing priorities, and the types of projects and interventions being undertaken in-country. We visited Ghana, India, South Africa and Uganda. These countries were chosen, after discussion with DFID, because they provide examples of the broad range of approaches used by DFID where it is active in the water sector. Uganda and Ghana are also countries which are making increasing use of budget support. During each visit we:

- visited an ongoing or completed project to gain an understanding of DFID's development activities and held discussions with local communities and government officials about the design, operation and impact of the project. This enabled us to see first-hand the difficulties of implementing projects and achieving sustainability, and how DFID has addressed these issues.
- Carried out semi-structured interviews with DFID staff relevant to the water sector programme, such as the head of country programme, water adviser, health, education and other sector advisers.
- Held meetings with host country government officials to ascertain views on DFID's role, focus and co-ordination with others.
- Held meetings with other donors and non-governmental organisations to seek views on DFID's advocacy role, the extent of co-operation with other donors and whether DFID is effective in addressing the needs of the recipient country.
- Examined documentation, including country needs assessments and reviewed available information relating to project selection, design, monitoring and evaluation.
- Reviewed poverty reduction strategy papers, government plans and other country information indicating the priority and resources allocated to water for the countries that we visited.

Evaluation of DFID's Water Projects

2 We analysed available project scoring information and project completion reports on water projects completed since 1997 to establish their success. In particular, we assessed whether projects had achieved their objectives and reviewed all available evidence of what longer term benefits had been achieved. In doing so, we were able to include all available information for projects started and completed between 1997 and 2002. We also reviewed documentation relating to the design, monitoring and evaluation of the projects to assess DFID's approach to project design.

Documentation Review

3 We undertook a wide-ranging review of documentation held by DFID including target strategy papers, country strategy papers and an analysis of DFID's spend in the water sector. We reviewed published statistics on the number of people without access to water or to adequate sanitation. To widen our focus, we also reviewed the extent to which water featured in DFID's country programme in a number of countries where statistics indicate that access to water and sanitation is particularly low.

Semi-structured Interviews with DFID Staff

4 We undertook semi-structured interviews with key staff based at DFID's headquarters in London and East Kilbride. This included heads of regional divisions, senior water advisers, senior and regional engineering advisers, senior health and environment advisers and others. We sought to establish DFID's approach to selecting, monitoring and evaluating its interventions and considered DFID's advocacy role, its global initiatives and its Knowledge and Research activities.

Consultation Exercise with Donors and Non-Governmental Organisation

- 5 We wrote to the key players in the water sector, including key non-governmental organisations, academic institutions and other donors. In particular we sought feedback on DFID's commitment to the water sector; its advocacy role; its focus and approach in country; the use made of expertise and research; and what has been achieved by DFID in the sector. A summary of the replies is included at Appendix 7.

International Comparisons

- 6 We visited two other bilateral donors (Denmark and Sweden) and held discussions with the Japanese Aid Agency to compare how DFID manages its operations. We focused on identifying areas of good practice through comparisons with the other donors' structure and their approach to design, monitoring and evaluation.

Expert Panel

- 7 We set up an advisory panel to provide expert advice. The Panel, which offered a wide range of expertise in the water sector and the evaluation of development assistance, comprised:

Professor Chris Binnie - Independent Water Consultant

Professor Richard Carter - Department of Water and the Environment, Cranfield University

Dr Alison Evans - Development Consultant

Stephen Turner - Deputy Director, WaterAid

The Panel gave advice on study methodology and provided an expert view on the findings reached.

Appendix 2

Some lessons from the historical experience of industrialised countries in the development of modern water systems

Paper by Tom Ling, Research Fellow, National Audit Office

The purpose of this appendix is to identify some key lessons about the early development of modern water systems in industrialised countries. These are intended to draw some parallels with the situation in developing countries today. A full version of this paper is available on the National Audit Office's web-site (www.nao.gov.uk/publications/nao_reports.htm). The focus is less in specific developments of the nineteenth century, such as the small bore sewer, and more in the general factors which had to be in place to allow the dramatic improvements in access to clean water to take place. We have organised these general factors into four areas:

- Technical and scientific knowledge
- Institution building and alignment
- Political imperatives and leadership
- Innovation, diffusion and path dependency

Technical and scientific knowledge included, first, the engineering knowledge that under-pinned Belgrand, Leather and Bazalgette's work in Paris, Leeds and London respectively. Secondly, by 1880 Pasteur's comment that 'we drink 90 per cent of our illnesses' was becoming accepted; bacteriology would play an important role in the later development of water systems. Prior to that, however, was the 'knowledge' that miasmas caused diseases. Despite what is now seen as the erroneous science behind this, the practical effect of this understanding was to focus attention on filth and bad odours as a cause of disease. Thirdly the construction of social data that allowed Chadwick and others to look at a map, identify the areas of greatest deprivation, and then chart the pattern of disease onto that map providing a powerful empirical basis for directing resources. Fourthly, as engineering developed there also developed a dominant paradigm of 'how things should be done' shared by engineers and policy-makers. This is characteristic of the development of any professionally-led body of knowledge. For water systems, this led to a narrow range of treatment options becoming accepted practice.

Institution building and institutional alignment was characterised in the nineteenth century by experimentation and adaptation. It often failed. In the 1830s, at the start of the cholera epidemics in London, for example, Parliament failed to establish a London-wide response, including the outer parishes. The City of London focused its resources on the commercial and non-residential areas leading to poor provision of water and sewerage in many of the more populace surrounding areas. As late as 1850 some 640,00 persons in London (including its suburbs) were not supplied with water (Jephson, p.21). The 1848 Public Health Act created the General Board of Health (with Chadwick one of its three members) which lasted for five years. This met much resistance (The Times described the Act as 'a reckless invasion of property and liberty'). The lack of consistent public support for a particular response to the problem, associated with uncertainty over the science helped lead to institutional inertia and conflict. After the demise of the Board of Health, the Privy Council was given some responsibility for public health (1858) and John Simon was appointed medical officer. However, a range of departments had responsibility for housing, burial grounds, baths and wash houses and Metropolitan Water. Prior to the creation of the Metropolitan Water Board there was fierce competition among the private water companies often leaving customers without water, pipes dug up and companies facing bankruptcy. Building a broad coalition behind the nature of the problem and a set of proposed institutional responses took perhaps half a century. Following the Royal Sanitary Commission's recommendation that a single authority take responsibility for public health, the Local Government Board was established in 1871.

If institution-building was often a hit-and-miss affair, co-ordinating existing institutions could also break down. Success depended upon at least two factors. The first was money. It proved more difficult in North America to build sewers that clean water supplies, for example, because it was easier to raise the funding. The second was governmental support. This depended upon securing political support. France, with a more *étatist* tradition, found it easier to deliver grand projects than in London (although, interestingly, municipal politicians like Joseph Chamberlain were more successful in this respect).

In turn, this depended upon political imperatives and leadership. 'King cholera' enjoyed a profile in the popular imagination that was far greater than the number of deaths it caused warranted, when these deaths are compared with the number of annual deaths caused by Tuberculosis and so forth. However, this combined with the novels of Dickens, the arguments of Chadwick and the threats of a radical working class movement to create an environment where politicians were forced into some sort of action. The 'Great Stink' of 1858 spreading its stench into Parliament was also a factor. Empirical, scientific, moral, religious, and social Darwinist arguments eventually combined to create a bias to action in England. This bias was reached more easily and earlier in France but may have been even harder to achieve in some North American cities.

Innovation in water systems came from a complex process involving recognising that there was a problem, defining that problem, identifying solutions, and constructing the institutions to deliver those solutions. Champions such as Chadwick, Biggs, Simon and Pasteur all influenced the debate but could not impose a solution. Experiments in different parts of the industrialised world, involving water closets, new sewerage and new institutional arrangements, combined with social statistics showing that these appeared to be working. This helped not only innovation but the diffusion of these innovations both within countries and between industrially developed countries.

Summary of Key Lessons

	Example	Lesson
Technical and scientific knowledge	Understanding of the importance of small bore piping and replacing flat-bottomed sewers Miasmas cause disease Mapping of disease and poverty Engineering community become locked into a dominant paradigm	Need to be aware of and apply latest technological thinking Widely-held views need to be challenged Empirical evidence can mobilise support Need to look beyond the 'experts' for innovative ideas
Institution building and alignment	Conflict among London's water companies Importance of civic pride in municipal grand projects Slow pace of development of sewerage systems in US Success of <i>étatist</i> interventions in France	Need to avoid perverse incentives which encourage dysfunctional behaviour A sense of locality can provide cohesion Need to ensure that money flows to where change is needed Need to build a political base for a coordinated response
Political imperatives and leadership	Importance of high profile figures such as Chadwick and Biggs Political anxieties over the 'Great Stink' and 'King Cholera' Coalition of medical science, engineering, reformism, social Darwinism and prohibitionists gave rise to support for investment in water system	Need for champions and leadership Disasters also provide an opportunity to bring about change Support unlikely to come from only one source - need to build wide coalitions
Innovation, diffusion and path dependency	Different cities tried different approaches and then learned from each other Empirical evidence of success was a powerful persuader Engineering becomes institutionalised	Need to foster diversity and learning in water projects Collect and use evidence to encourage diffusion of successful approaches Reward innovation

Beder S. (1997) 'Technological Paradigms: the Case of Sewerage Engineering' *Technology Studies*, 4(2), 1997, pp. 167-188.
 Halliday, S. (1999) *The Great Stink of London: Sir Joseph Bazalgette and the Cleansing of the Victorian Capital*, Sutton Publishing.
 Jephson, H. (1971) *The Sanitary Evolution of London* New York: Benjamin Blom.
 Melosi, M. V. (2000) *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present* Baltimore: John Hopkins.
 Wohl, A. (1983) *Endangered Lives: Public Health in Victorian Britain* Cambridge: Harvard University Press.

Appendix 3

Achievements of a sample of DFID's water projects

This appendix shows information contained in DFID project completion reports and evaluations by project partners for a sample of completed water projects. Project achievements are shown against four key criteria. Projects do not necessarily aim to achieve developments under all headings as their focus varies.

	Physical infrastructure and other outputs/changes	Hygiene promotion activities and behaviour change	Institutional learning and capacity building	Evidence of sustainability or replicability
WaterAid Developing ASAL Water, Kenya Expenditure: £612,000 Aim: To establish sustainable improvements to water access in Kenya	<ul style="list-style-type: none"> ■ 17 underground wells, 10 shallow wells and 22 offtake wells ■ 58 sand dams ■ Training of artisans ■ Water fetching time in project communities has been reduced from four to two days in nomadic areas, and from eight to two hours in agricultural areas 		<ul style="list-style-type: none"> ■ Enhanced capacity of partners to deliver effective community-based programmes ■ Water user associations and committees have assumed responsibilities for managing water systems ■ Developed and agreed on suitable reporting systems 	<ul style="list-style-type: none"> ■ Sand dam technology has been replicated by other development organisations
Chennai Metro Water Supply and Sewerage Board, India Expenditure: £741,000 Aim: To help Chennai water board to consider options for service delivery of safe and good quality water	<ul style="list-style-type: none"> ■ Situation analysis of sector undertaken, and options for water and sanitation sector were developed. 			<ul style="list-style-type: none"> ■ Findings were contested and later diluted by the state partner. Sustainability considered to be dependent on political commitment.
Bethlehem 2000 Doha Sewerage Expenditure: £1.1 million Aim: To provide the residents of Al-Doha and Al-Khader with a network sewerage system	<ul style="list-style-type: none"> ■ Project constructed 28 kilometres of piped sewerage system, connecting the towns to the main sewer network. ■ Support was given to help address implementation and operational problems, including the issue of illegal and legal connections 	<ul style="list-style-type: none"> ■ The project included a health education component to increase potential health benefits. 	<ul style="list-style-type: none"> ■ Limited opportunities to improve the institutional framework although support given to address operational problems. 	<ul style="list-style-type: none"> ■ No evidence available due to political circumstances
Department Of Water Affairs and Forestry Capacity Building, South Africa Expenditure: £2.4 million Aim: To assist DWAF to build capacity in the provinces of Eastern and Northern Transvaal to support the provision of community managed water supply and sanitation	<ul style="list-style-type: none"> ■ Government regional management team strengthened to provide support to provincial governments local authorities, water boards and communities ■ Community water supply and sanitation directorates expanded ■ Support for the development of effective local authorities to manage service provision 		<ul style="list-style-type: none"> ■ Institutional framework and capacity to support community managed water supply and sanitation development has increased through strengthening of the regional management team ■ Capacity for community participation has been increased through DFID support, particularly through training packages and guidelines 	<ul style="list-style-type: none"> ■ Water boards and other bodies appear to be demonstrating sustainability although still grappling with some issues such as non-payment for services

	Physical infrastructure and other outputs/changes	Hygiene promotion activities and behaviour change	Institutional learning and capacity building	Evidence of sustainability or replicability
<i>Continued</i>				
Development of a National Sanitation Programme, South Africa Expenditure: £1 million Aim: To develop and implement the start-up phase of a national sanitation programme for South Africa at a national, provincial and local level	<ul style="list-style-type: none"> ■ Clear guiding policy principles to national sanitation programme have been developed and accepted at national level 	<ul style="list-style-type: none"> ■ A DFID-funded National Sanitation Council has operated parallel to the Government's focus on hardware delivery and has focused on hygiene education and inter-departmental co-ordination. ■ South African focus is still predominantly on hardware delivery so there are limited lessons on software best practices 	<ul style="list-style-type: none"> ■ Capacity has been developed at national and provincial level to facilitate the continued development of the programme ■ But limited capacity to drive the process forward and the programme has not yet addressed the support required by local government, which is responsible for actual delivery of services ■ Co-ordination forums initiated in seven provinces had significant impact in raising awareness and providing support 	<ul style="list-style-type: none"> ■ Significant progress has been made by the Government in recognising the importance of sanitation, but sustainability of the National Sanitation Council without DFID support is considered unlikely
Water Supply Rehabilitation Project, Montserrat Expenditure: £1 million Aim: To improve the quality of water transmission, storage and distribution in the northern safe zone of Montserrat	<ul style="list-style-type: none"> ■ Replaced water supply mains ■ Installed chlorinators ■ Procured plant ■ Constructed pumping stations ■ Strengthened distribution network ■ But problems with the siting and structure of a reservoir resulted in a reduction in the efficiency of the system, and damage to the reservoir structure. 		<ul style="list-style-type: none"> ■ Institutional issues were beyond the scope of the project and are being dealt with under two separate DFID projects 	<ul style="list-style-type: none"> ■ Since project completion there have been a number of failures in supply to large areas of the north as a result of poorly handled burst mains. This project represents a response to an emergency but a more sustainable approach would have placed the project in a wider sectoral context.
BAPEDAL Groundwater Monitoring Project, Indonesia Expenditure: £518,000 Aim: To establish a groundwater quality monitoring capability with the Indonesian Environmental Impact Management Agency	<ul style="list-style-type: none"> ■ System to monitor groundwater quality was defined and equipment procured and installed, but time insufficient to ensure that system was yet operational 		<ul style="list-style-type: none"> ■ The authority is not yet committed to compliance control and application of penalties, which weakens its institutional position 	<ul style="list-style-type: none"> ■ Without further support project judged to have limited further impact in the short term, especially in view of Government of Indonesia restriction from financial crisis. However, likely that project will be sustainable since groundwater is so significant for water supply
Sichuan Urban Environment Project, China Expenditure: £1.8 million Aim: To assist the provincial government to prepare for a World Bank loan which reduces environmental degradation of water and land resources	<ul style="list-style-type: none"> ■ Support to project management in carrying out design for World Bank investments ■ Industrial control action plan and assessment of project beneficiaries produced to provide additional assistance to Sichuan authorities 		<ul style="list-style-type: none"> ■ Support to project management office before final World Bank appraisal resulted in strengthened capacity 	<ul style="list-style-type: none"> ■ Considered too early to say whether affected areas will recover from environmental degradation after World Bank loan, but Sichuan authorities are committed to the process.

	Physical infrastructure and other outputs/changes	Hygiene promotion activities and behaviour change	Institutional learning and capacity building	Evidence of sustainability or replicability
<i>Continued</i>				
Public Health Water and Sanitation Programme, Liberia Expenditure: £271,000 Aim: To reduce the risk of public health related diseases and mortality rate through increased and sustained access to clean water and sanitation facilities for 40,000 people in 60 communities	<ul style="list-style-type: none"> ■ Construction or rehabilitation of 62 wells ■ Construction of 41 institutional latrines in schools, clinics and market places ■ 15,000 people now have access to safe drinking water ■ Data indicates a general reduction in the prevalence of water and sanitation related diseases, particularly diarrhoea, malaria and skin infections 	<ul style="list-style-type: none"> ■ Hygiene education on faecal disposal and other sanitation practices through workshops and theatre productions ■ Behaviour changes in sanitation thought to be result of household latrines and hygiene education 	<ul style="list-style-type: none"> ■ Training of 131 village pump technicians ■ Formation of 60 water and sanitation committees 	<ul style="list-style-type: none"> ■ The water and sanitation committees and training of pump technicians were designed to ensure sustainability
Busoga Trust Development Project, Uganda Expenditure: £611,000 Aim: To improve the health and quality of life for rural communities in three districts through the construction of shallow wells and health education programmes	<ul style="list-style-type: none"> ■ Increased geographical coverage of water to 216 communities ■ Construction of 62 springs ■ 154 hand dug shallow wells ■ 10 wells ■ 7 rain water tanks for schools 	<ul style="list-style-type: none"> ■ Hygiene awareness campaign took place in half the communities but did not keep pace with construction works, ■ However, communities reported reduction in water related diseases 	<ul style="list-style-type: none"> ■ Water user committees formed for maintaining the water sources (approximately half were thought to be active) ■ 30 hand pump mechanics were selected from the community and trained to increase capacity 	
Water, Sanitation and Hygiene Education Programme, Bangladesh Expenditure: £965,000 Aim: To develop, promote and implement cost effective models for providing sustainable community managed safe water supply and sanitation facilities	<ul style="list-style-type: none"> ■ Models of water supply and sanitation have been successfully implemented. Range of appropriate water supply options developed and in use ■ Beneficiaries of programme between 1998-2001 are: 117,000 in water supply and 100,000 in sanitation. 	<ul style="list-style-type: none"> ■ Adopted very participatory approach to hygiene promotion. ■ Total beneficiaries reported to be 258,650 	<ul style="list-style-type: none"> ■ WaterAid supported 11 partner non-governmental organisations to build their capacity, particularly with regard to training in hygiene education 	<ul style="list-style-type: none"> ■ The strengthening of local systems will help deliver sustainability. But there remains uncertainty about replicability of some models although there is evidence of some uptake and of hygiene promotion approach by other organisations in the sector
Dowa District Safe Water and Sanitation, Malawi Expenditure: £638,000 Aim: To mitigate the effects of recurrent droughts and reduce the incidence of diarrhoeal diseases	<ul style="list-style-type: none"> ■ 113 boreholes and 14 shallow wells in place ■ 509 dome slabs cast ■ 2 schools equipped with latrines ■ 24 hand-washing facilities built ■ 33 artisans trained 	<ul style="list-style-type: none"> ■ No direct assessment made 	<ul style="list-style-type: none"> ■ Water management committees established and operational ■ School water committees also established ■ Formation and strengthening of local co-ordination teams 	<ul style="list-style-type: none"> ■ Project did not attempt to increase district level capacity for planning or resource optimisation. This led to doubts over long term sustainability of structures such as water committees and pump mechanics

Appendix 4

Key international conferences that have developed international donor thinking in the water sector

1977 World Water Conference in Mar del Plata, Argentina

Designated the 1980s as the International Drinking Water Supply and Sanitation Decade, giving the water sector a higher profile around the world.

1980s - International Drinking Water Supply and Sanitation Decade

Many agencies and governments overhauled their supply-led approaches to water and sanitation, which focused almost exclusively on the construction of new infrastructure. More appropriate technologies were introduced, and agencies started to integrate hygiene promotion, sanitation and water supply in their interventions.

1987 World Commission on Environment and Development

In response to heightened interest in water issues, the Brundtland Commission proposed "sustainable development" to the world, and identified water as a key issue amongst global environmental concerns in the report "Our Common Future".

1990 New Delhi Conference

This highlighted the lessons of the Drinking Water Supply and Sanitation Decade and the changing working methods of government, civil society and the private sector. Included discussion of:

- more efficient and lower cost technologies;
- protection of the environment and health through integrated management approaches; and
- strengthening of participatory institutions.

1992 International Conference on Water and the Environment in Dublin

- new framework for developing water resources and sanitation was articulated;
- recognised that a wider set of stakeholders were required, with increasing public-private partnerships in service provision; and
- pivotal role of women as providers and users of water was recognised.

1992 Earth Summit in Rio de Janeiro

The summit covered the following issues:

- emphasis on water supply and basic sanitation was widened to recognise that the management and use of water is part of broader environmental protection and sustainable development;
- global concern over water scarcity and water pollution;
- firm establishment of water and sanitation as critical elements in human and economic development; and
- national targets suggested for reducing waterborne diseases and for meeting urban/rural water and sanitation needs.

1994 Ministerial Conference in Noordwijk

Follow-up of freshwater recommendations from the Earth Summit in Rio de Janeiro. Focused on:

- involving stakeholders more strongly in partnerships for decision making;
- integrating water resource management into planning for other key sectors;
- strengthening the institutions responsible for service provision;
- mobilising financial resources for the future; and
- improving the quality of international support for the sector.

1997 European Union called for Programme of Action

This reaffirmed the recognition of safe drinking water and sanitation as fundamental rights, and developed a conceptual framework, which focused on the quantity of quality water required to meet basic human needs.

1997 First World Water Forum, Marrakech, Morocco

The World Water Council was given mandate to develop a long-term vision for "Water, Life and the Environment for the 21st Century", to be presented during the Second Forum at the Hague, 2000.

1998 International Conference on Water and Sustainable Development in Paris

Achievements included the following:

- emphasis on the need for continuous political commitment and broad-based public support to provide access for all to safe drinking water and sanitation; and
- establishment of the World Water Vision initiative.

2000 United Nations Millennium Declaration

This included the adoption of a set of Millennium Development Goals, including one to halve by 2015 the proportion of people without sustainable access to safe drinking water.

2000 Second World Water Forum at The Hague

The forum included the following issues:

- highlighted importance of the private sector in achieving progress in water;
- asserted need to charge full-cost price for water; and
- reaffirmed rights of access to water.

2001 International Freshwater Conference in Bonn

Discussion included the following:

- identification of poverty as an underlying problem to water;
- importance of addressing trans-boundary water issues stressed; and
- the need for increased emphasis on sanitation and hygiene.

2002 World Summit on Sustainable Development

This provided an opportunity to highlight the links between environmental issues and achievement of the Millennium Development Goals and attained the following:

- agreement of a new target to halve the proportion of people without access to basic sanitation by 2015 and reinforcement of the target to halve the proportion of people without access to safe drinking water by 2005; and
- a target set for all countries to have in place integrated water resource and water efficiency plans by 2005.

Appendix 5

Case study: Uganda

Background

Uganda has a population of 22 million, of which 35 per cent live below the poverty line. In recent years Uganda has made good progress in implementing poverty initiatives across a range of sectors and this has contributed to a reduction in the prevalence of poverty (from 56 per cent in 1992). Political commitment to poverty eradication remains strong and the government published its Poverty Eradication Action Plan in 2000. Although there are a number of concerns over the country's internal and external conflicts, military spending and corruption, DFID judges that Uganda's commitment to poverty reduction is conducive to the effective disbursement of aid.

Uganda is a highly aid dependent country with donors contributing nearly 50 per cent of national expenditure. A large number of bilateral and multilateral donors are active in country.

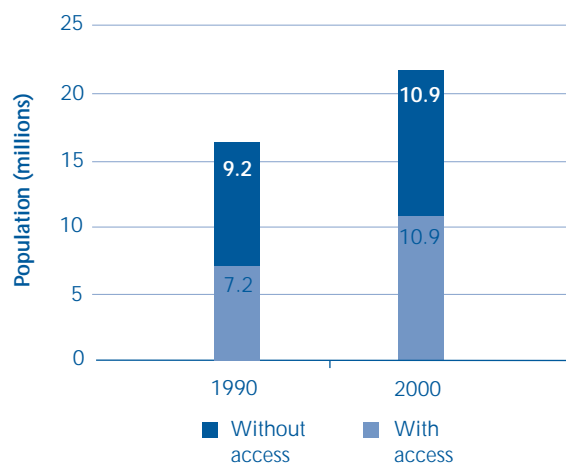
Access to water and sanitation in Uganda

Access to safe drinking water increased from 44 per cent to 50 per cent during the 1990s, which meant that 3.7 million people gained access to safe drinking water. However, population growth meant the number without access actually increased and 10.9 million Ugandans still remain without access. The majority of Ugandans live in rural areas where access is lower than in urban areas. There are also wide variations between regions as water coverage varies from 14 per cent to 84 per cent.

Access to sanitation facilities was 50 per cent in rural areas and 60 per cent in urban areas in 2000 but no reliable historical figures are available.

The Government of Uganda is committed to improving access to water and sanitation. The Ugandan Poverty Eradication Action Plan includes water as one of Uganda's four priorities in achieving poverty targets. Further, financial resources to the sector have tripled in the last four years with a tenfold increase in Government funding.

Access to water and sanitation in Uganda



DFID's country programme

In 2001-02 DFID disbursed £68 million of aid to Uganda through its bilateral country programme, which meant it was DFID's second largest bilateral aid programme. Historically, DFID support has mainly been focused on the health and education sectors and improving good governance. Over recent years DFID has disbursed an increasing amount of aid through budget support and in 2001-02 this represented 83 per cent of the country programme. The aim is to focus DFID's assistance around support for the implementation of the Poverty Eradication Action Plan.

DFID's involvement in the water sector

The country team told us that the key consideration in deciding the focus of the country programme is to match DFID's commitments to government priorities. This is reflected in their focus on the health and education sectors, and has also led to involvement in the water sector. But DFID's assistance to the water sector is relatively small scale and represents a small proportion of the country programme. DFID's analysis shows that water-related expenditure was £2.9 million in 2000-01 (DFID's sixth largest water programme). However, £1.8 million of this was on projects in which water was a minor element of more wide-ranging projects. DFID's expenditure on dedicated water projects was £0.5 million.

This level of expenditure in the water sector means that DFID is a relatively small player in the water sector and since 1996 its commitments have varied between three per cent and six per cent of total bilateral assistance to the sector. The largest bilateral donors in the sector are Denmark, Japan, Sweden and Germany, all of whom have made larger long-term commitments.

The focus of DFID's assistance in the water sector

Prior to 2000 DFID's support to the sector had been limited to discrete water projects, carried out by non-government organisations. Since 1990 DFID has committed £11 million on 35 water projects, all but four of which have been under £500,000. DFID has relied upon proposals from non-government organisations and the water adviser's knowledge of the Uganda's needs to determine its involvement in the sector. Projects have focussed primarily on improving access to drinking water in rural areas, which is consistent with Uganda's needs as the large majority of people without access live in rural areas. DFID's projects have not focussed to any large degree on other sub-sectors of water, such as sanitation and water resource management.

In 1998 DFID commissioned a study of the water sector which led to the approval of a project. However, in 1999 the Government of Uganda stated its intention to direct significant additional resources to the water sector and, as a result, DFID fundamentally re-considered its involvement. This led to the development of the National Water and Sanitation Programme, implemented in 2002, to assist the government in effectively utilising its resources through the provision of technical assistance (Figure 17). This was consistent with the sector wide framework being developed in Uganda, whereby, in future, all water development will be funded through a single channel.

Implications of the increasing use of budget support

DFID is making increased use of budget support in Uganda in order to seek improvements in the effectiveness of aid. One of the reasons is the recognition that government systems need to operate effectively if Millennium Development Goals are to be met. DFID has therefore focussed on strengthening government systems and aligning donor support with Uganda's poverty reduction strategy. This shift also has implications for the nature of DFID's involvement in-country. DFID will withdraw from direct involvement in the water sector when the on-going project ends. This is because DFID believes that its comparative strengths lie elsewhere and the water sector is well-covered by other donors. It will continue to engage in policy dialogue in those sectors where it perceives it has a comparative advantage.

The use of budget support also raises a number of challenges for individual sectors. In the water sector, the key issue is how to raise the level of capacity to deliver improvements in providing wider access to water and sanitation. In the short-term DFID is providing technical assistance to support the government in reforming the sector and is contributing towards the development of a sector wide approach with Denmark and Sweden.

Whilst in Uganda we undertook a range of activities including a visit to DFID's project in the Jinja region and held meetings with various levels of government. Our key observations were:

- The decentralised government structure means that lower levels of government are responsible for delivering water services, but capacity to deliver such services is weak. There are a number of issues including the robustness of systems to account for the flow of funds between different levels of government and the lack of human resource capacity issues at district level to plan for and implement service improvements.
- The project we visited placed much emphasis on raising awareness and educating the local community in the benefits of improved water sources. This led to the community taking responsibility for the water sources, thus improving the chances of sustainability. But the communities also raised concerns over operation and maintenance issues, citing unavailability of spare parts and confusion that a nearby project funded by Denmark used different technology. Such issues undermine the sustainability of DFID's investment.



Appendix 6

DFID provides support to key international bodies and initiatives in the water sector

Global Water Partnership

An international network supported by a number of bilateral donors, created to foster integrated water resources management through support to stakeholders. DFID is the largest donor and contributed £1.5 million in 2000-2001.

Water Supply and Sanitation Collaborative Council

A cross between a professional association and an international non-government organisation, whose aim is to enhance collaboration in the water and sanitation sector through shared knowledge and experience. The Council is supported by a number of bilateral donors including DFID (again the largest donor), the Netherlands and Switzerland.

Water and Sanitation Programme

An international partnership which collaborates with many public, private and non-governmental agencies in the sector at field level as well as seeking reform dialogue at the highest political level and advocating for change. DFID contributed £2.4 million in 2000-2001, and has contributed on average 11 per cent of total funding to the program since 1998.

International Programme for Technology and Research in Irrigation and Drainage

This programme aims to enhance the standard of irrigation and drainage research in and by developing countries, to increase the production of food and enhance food security.

Cities Alliance against Slums

This alliance aims to tackle poverty in cities, where it is growing most rapidly. It seeks to advance the knowledge of authorities and their international development partners on ways to reduce urban poverty. DFID has a significant commitment of US\$10 million over the next three years to a new Community Led Infrastructure Finance Facility, designed to increase the access of poor communities to medium term sources of capital, to be used for infrastructure such as access to water, energy and sanitation facilities.

Building Partnerships for Development

An informal network of partners that seeks to encourage partnerships between the private sector, government and civil society and seeks to explore how private operators can provide responsive and affordable water and sanitation services to the poor.

Public Private Infrastructure Advisory Facility

A multi-donor technical assistance facility aimed at helping developing countries improve the quality of their infrastructure through private sector involvement. This was a joint initiative of the Japanese and British, working closely with the World Bank. The facility has produced good practice guidance documents on private sector participation in water and sanitation. DFID contributed £1.2 million in 2000-2001.

Other targeted outputs include:

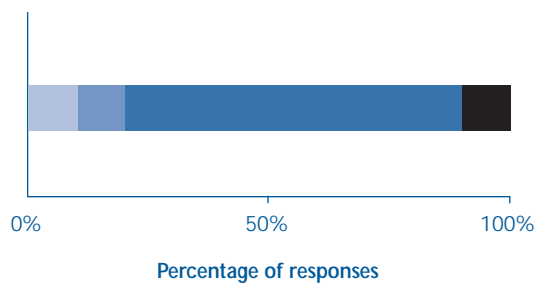
- World Health Organisation/UNICEF Joint Monitoring Programme and Global Water Supply and Sanitation Assessment report
- World Commission on Dams - Dams and Development Project
- UNESCO International Hydrology Programme
- UNESCO World Water Assessment Programme
- Gender Water Alliance
- World Bank Global Benchmarking Network
- World Bank Groundwater Management Advisory Team

Appendix 7

National Audit Office consultation exercise

We received responses from 15 non-government organisations and academic institutions active in the water sector. We asked respondents to provide a rating and views on a range of questions concerning DFID's approach in the water sector. This appendix summarises these responses.

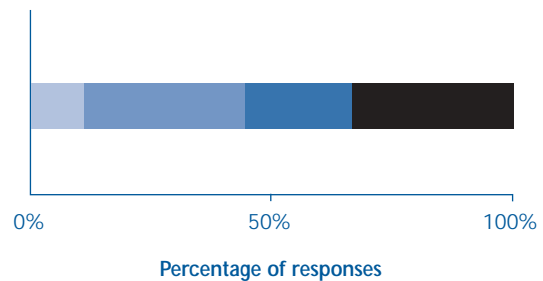
Is DFID committed to the water sector?



■ Not at all ■ Partially ■ Largely ■ Fully

- DFID has a clear long term vision for the water sector, as illustrated by the Target Strategy Paper but there is no agency-wide strategy to achieve this.
- The Target Strategy Paper is an excellent document demonstrating commitment to the water sector. The document is particularly successful in highlighting the importance of water resource management and recognising water as social and environmental good.
- DFID centrally gives emphasis to the water sector, but this is not reflected in the activities of decentralised country programmes where emphasis on water is lagging behind other sectors.
- The commitment of country teams to the water sector seems to vary according to the amount of expertise in country. The complexity of the water sector can dissuade country teams from maintaining interest in the sector.

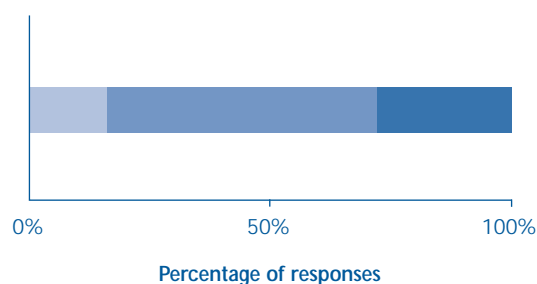
Has DFID played an active influencing role in the water sector?



■ Not at all ■ Partially ■ Largely ■ Fully

- DFID is an influential player in the water sector and is willing to provide significant support to a range of activities.
- DFID is proactive in raising the profile of water and is visible in international conferences such as the World Summit for Sustainable Development and the World Water Forum.

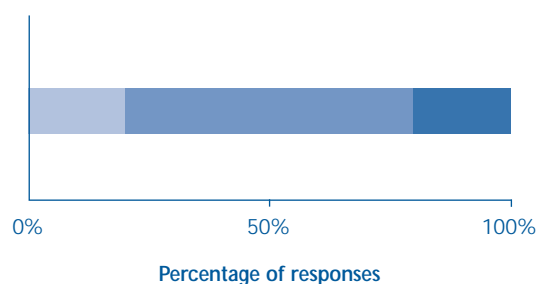
Do DFID's country water programmes address the needs of the host country?



■ Not at all ■ Partially ■ Largely ■ Fully

- DFID country teams' understanding of the situation is variable from one team to another and is dependent on its ability to form lasting partnerships with the host government.
- Several examples were given to illustrate where DFID's programmes are successful in focusing on the country water needs.
- DFID is strong at capacity building, but is now less involved in infrastructure projects. This reduces its ability to highlight good practice approaches by example.

To what extent does DFID have the right balance between water supply and sanitation, and broader water resources issues?

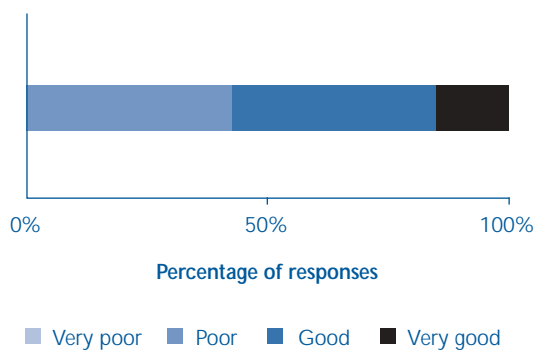


■ Not at all ■ Partially ■ Largely ■ Fully

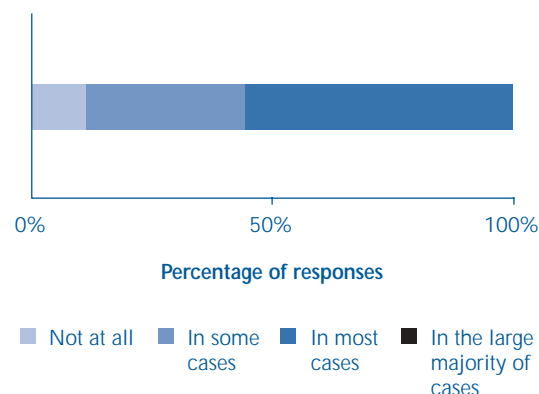
- DFID's interventions mainly focus on domestic water supply, but there has been an increase in the attention paid to water resources management and sanitation.
- DFID is still not giving sufficient consideration to water resource management at country level, and would benefit from paying greater attention to the needs, costs and demand for water.
- Water for food is generally neglected at country level, particularly where there is no water adviser. Country teams should consider placing greater emphasis on this.



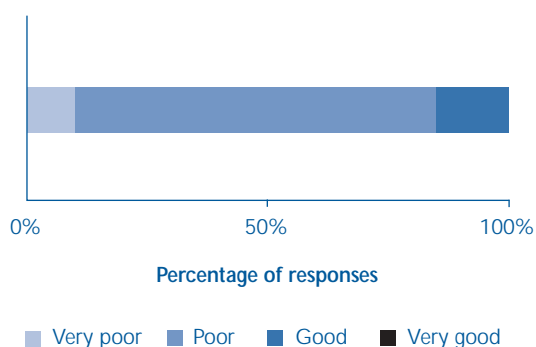
What is the level of co-ordinated international response to addressing the water crisis - centrally?



Have DFID's projects achieved sustainable developmental impacts?



What is the level of co-ordinated international response to addressing the water crisis - at country level?



- In common with other donors, projects have had a mixed degree of success, although many projects with a focus on institutional capacity building have been quite successful.
- DFID has placed a strong emphasis on sustainability, particularly with respect of managing short term risks.
- More emphasis is needed on longer-term issues to improve sustainability. DFID's reluctance to enter into long term commitments may hinder long term sustainable impacts.

- Centrally DFID appears to be clear about the importance of liaison with key players.
- Responses at country level were more mixed and recognised that liaison in country can be problematic if the DFID team is not based in country. Several responses commented that liaison was often weak with bodies which had no direct project link within DFID.
- Non-governmental organisations and research bodies gave a mixed response concerning their satisfaction with liaison. Several suggested that co-ordination and administration could be improved, and that DFID could be more proactive in meeting non-governmental organisations.

