

A WaterAid Briefing Paper



A Poverty-Reduction Approach to Water,  
Sanitation and Hygiene Programmes

*Alan Nicol, ODI*  
*July 1999*

## Introduction

The key questions this paper addresses are: 1) What is a specific poverty-reduction approach to water supply, sanitation provision and hygiene promotion and 2) What is the best way to make this approach work? Immediate answers would seem to be: 1) An approach which raises the living standards of the poor and 2) By identifying and addressing the principal reasons for poverty. In both cases the solution in the water and sanitation sector require an adaptation of past practice.

Selecting the right solution is complicated by the different approaches to poverty and poverty reduction, and the changing conditions within which the approaches are to be implemented. These include social, economic and physical environments. Changing ideas and environments ensure that no one approach remains universally valid for long. Therefore an approach that specifically seeks to address poverty reduction needs to be both responsive to changing external environments and be targeted at different facets of poverty: in short it needs to be multidimensional.

This paper suggests a three-tiered approach and the main aim is to address more coherently and effectively the global agendas of poverty reduction and water and sanitation development in the next century without losing sight of past experience.

### 1.1 Global poverty levels

Global poverty levels are falling in absolute terms<sup>1</sup>, but the poorest are getting poorer and the gap between rich and poor regions, countries and communities is widening. Internationally some 1.3 billion people are in absolute poverty (living on less than a dollar a day (UNDP, 1999))<sup>2</sup> and current concentrations of wealth are unprecedented. At the same time globalisation of the world's media and information networks means few communities are without access to images of global wealth and/or images of poverty. Perceptions of poverty and wealth are now more universal than ever before, with significant implications for expectations of development.

Globalisation of media images has been paralleled by international efforts to address poverty. Many agencies, including the World Bank, which announced its 'New Poverty Agenda' at the beginning of the 1990s<sup>3</sup>, include poverty reduction in their mission statements. Since 1997 the British government has centred the UK aid programme around the goal of eliminating poverty worldwide (White Paper, 1997). Most recently the broad international consensus towards poverty reduction has found expression in the Organisation for Economic Co-operation and Development (OECD)/Development Assistance Committee (DAC) goal of halving global levels of absolute poverty by 2015 (OECD/DAC, 'Shaping the 21st Century'). This is now the current international target which many governments are seeking to address.

---

<sup>1</sup> Although some 60 countries have been getting steadily poorer since 1980 (United Nations Development Programme (UNDP), 1999).

<sup>2</sup> A dollar a day (US) at its 1985 level of spending power is the most commonly used measure of absolute poverty.

<sup>3</sup> The World Bank's strategy involved 1) broad-based economic growth to generate efficient income-earning opportunities for the poor; and 2) improved access to education, health care and other social services to help the poor to "take advantage of these opportunities"; in addition a social safety net for the poorest was envisaged (World Bank, 1993).

## 1.2 Global water and sanitation provision

'Water for Life', 'Water for Health' and 'Water for All' are stock phrases in the sectoral development literature. Poor sanitation, particularly in urban areas, and lack of access to water are universal currency in agency and media portrayals of poverty, with immediate visual impact and little controversy over the links to poverty. At present an estimated 3 billion people lack access to basic sanitation and some 5 million die each year from diarrhoeal diseases caused by water contamination (UNDP, 1999). The association between poverty, ill health and poor water supplies and sanitation is firmly embedded, not only in the development literature but also in popular conceptions of countries of the South.

This is based on the evidence to date which indicates that more and better quality water, in combination with reduction in exposure to disease pathogens through better sanitation and improved hygiene behaviour, improves the health of individuals and contributes to the productivity of communities. Little research to date challenges these links. Nevertheless, based on the arguments in this paper, two questions that an effective poverty-reduction approach needs to ask more generally are: 1) how improved water and sanitation contributes to poverty reduction through health and other benefits? And 2) Are current approaches which emphasise an integrated water, sanitation and hygiene promotion approach consistent with a broader approach to poverty reduction?

## 1.3 Global governance issues

Although not directly related to a poverty-reduction approach to water supply and sanitation, global governance issues have a significant impact on the sector. A number of trends have been emerging both inside and outside the sector. Following the experience of the Water Decade (1981-1990) there has been a greater global emphasis on seeking common approaches and learning from past mistakes. Important international institutions have developed, including the Collaborative Council, the Global Water Partnership and, most recently, the World Water Council<sup>4</sup>. While these institutions do not approximate to a form of global management of resources within the sector, they are very important in terms of the uptake and dissemination of new thinking. Consequently their impact on poverty-reduction approaches is likely to be highly significant, if indirect. Their form and functioning may condition donor attitudes into the next century and affect the types of relationships NGOs have with government, private business and communities.

In addition, as the relative global scarcity of freshwater resources increases and the food production to water relationship becomes more critical (particularly in water-scarce, low-income countries), there will be an increasing emphasis on the impact which a scarcity of resources has on poverty, particularly in Sub-Saharan Africa. The sector as a whole will need to justify increasing spending on water supply for domestic use against competing uses in other sectors, including agriculture. Maintaining water quality will become an increasingly important health issue worldwide. Resolution of these issues at a policy level may well take place within the newly formed global institutions.

---

<sup>4</sup> The latter two institutions have been instrumental in the development of the World Water Vision and Framework for Action ahead of the March 2000 Hague meeting.

## 2.0 The International Policy Context

### 2.1 Changing Perceptions of poverty

The idea and meaning of 'poverty' are not static concepts, but have been actively debated for much of the last century. In recent years, ideas of transitory and seasonal poverty have been contrasted with the notions of chronic, gender-specific, child-specific and urban or rural types of poverty. However there remains a general consensus that poverty is more than a descriptive idea, and instead is essentially prescriptive and, by extension, value-laden. Therefore seeking a poverty-reduction approach becomes a political decision and one which some governments are reluctant to take (see box 1.0). Differences in emphasis and definition do, however, change approaches taken to reducing poverty, not least within water and sanitation. It will be shown that current directions have enormous implications for the goal of poverty reduction.

In their crudest form general levels of poverty have been associated with lack of income: in effect economic inactivity or marginalisation leads to reduced income (or consumption) causing individual and household impoverishment. This is usually measured as a fall in per capita income at a macro level. The most widely used poverty threshold has been a US dollar a day per person at 1985 purchasing power.

#### **Box 1.0 Power, participation and politics**

##### **Macro-level - structural adjustment**

Poverty reduction may not be a government priority and political circumstances may not be conducive to such an approach. *"The policies in place when a structural adjustment policy is adopted are not accidental, the outcome of purely technocratic considerations. They also reflect the distribution of political power. This helps explain the biases in educational and health budgets in favour of middle class users. Similarly, policy biases towards urban dwellers and the middle class, and the common difficulty, therefore, of shifting relative prices in favour of agriculture reflect their greater potential for creating political trouble. Policies based on the existing distribution of power, therefore, often have large inertial force, difficult to change because those who benefit are often influential enough to block reform and to prevent targeting resources on those most in need of them".* (Killick, 1999)

##### **Micro-level – water**

Even when projects may target poor communities, who can guarantee that the poorest will benefit? "We became increasingly concerned that the programme was not reaching through to the very poor in the community. They will always tend to hold back whilst more vocal and confident people will step forward to claim the benefits. In the water context, we had to take a firm stand at the planning stage to ensure that low-caste groups were adequately served. The message here is that it is not enough to classify an entire community as 'poor', since every community will tend to subdivide itself and marginalise subgroups within it" (Chris Ruddall, West Myagadi Community Health Programme, Nepal (International Nepal Fellowship), in Ian Smout ed, 1999).

This wealth-based definition pre-supposes that economic growth would be followed by the 'trickle-down' of benefits to the poor. Such a definition also fails to recognise other barriers to social development, including access to political power, and cultural and social barriers to accessing social and material goods (regardless of extra income). With greater income the poor

could purchase the services and goods they required, literally 'buying' their way out of poverty. This view stresses the market mechanism as a basis for the provision and exchange of goods, but fails to address the idea of relative poverty, or, at best, redefines it as 'inequality' (i.e. within a given socio-economic environment). Although closely associated with modernisation theories of the 1950s and 1960s and the 'stages of growth thesis' (which has subsequently been largely rejected), the idea finds a contemporary echo in ideas of 'pro-poor' economic growth.

In the 1970s a needs-based approach became more firmly established, particularly as the prospects for economic growth in developing countries diminished following the world economic slump. The idea of 'basic needs' reflected a wider view of social and economic deprivation which was not limited to economic growth, but included social factors such as health, education and access to water and sanitation. The mechanism to address poverty shifted to the idea of integrating a basket of needs into one package, the so-called 'integrated rural development projects' of the late 1970s/early 1980s. However, these projects proved difficult to implement, not least because of inherent institutional and planning difficulties. Their relevance in this context is that many included a water and sanitation component, particularly during the Water Decade (see section 2.2 below).

By the mid-1980s, conceptions of how to address poverty began to shift further towards understanding the social and political dimensions of being poor. This included the problems of marginalisation and exclusion from development. In particular this work focused on the idea of capacities, capabilities and empowerment and led to an emphasis on participation at all stages of development. The works of Amartya Sen and Robert Chambers<sup>5</sup> were instrumental in the development of new approaches to poverty. These approaches developed in tandem with an increasing emphasis on rights-based approaches representing the emergence of a more politicised and challenging development environment.

#### **Box 2.0 Poverty indicators and water and sanitation**

Access to a safe water supply is an indicator of levels of poverty. The UNDP Human Poverty Index - a multidimensional measure of poverty which incorporates in one composite index the four dimensions of human life: a long and healthy life, knowledge, economic provisioning and social inclusion – states that: "*In developing countries lack of access to health services and safe water and the level of malnutrition capture deprivation in economic provisioning more practically than other indicators*". Water supply is therefore an important component of one internationally accepted poverty index. The corollary that more access to water contributes to 'less poverty' may only hold if other conditions such as lasting health benefits or increased productivity through combining with other assets holds true. Likewise, health benefits may require adequate sanitation and effective hygiene promotion. The issue of supply also has to address water quality and the desirable level of quality for different uses. Hence, while a poor quality supply for a household's own consumption might warrant a higher poverty weighting, the same supply might be plentiful and not harmful for livestock, which serves to increase livestock productivity and reduce the vulnerability of the household (see Boxes 4.0 and 5.0).

<sup>5</sup> Sen was instrumental in the development of the more broad-based UNDP Human Development Index which includes income and quality of life indicators. Chambers has been central to the development of participatory rural appraisal techniques and including the poor as 'stakeholders' in development processes, putting the 'last first'.

## 2.2 Changing approaches to Water and Sanitation

Approaches to water and sanitation have partly reflected the changes in the wider development environment. In particular the shifts from supply of basic needs to the creation of more participatory and inclusive environments for project implementation. Recently there has been a shift in emphasis among some donors from supply delivery to the need to stimulate demand for services. This has important consequences for the mapping of an effective poverty reduction approach.

Historically, the main initial impetus to much water and sanitation development was the action plan which emerged from the Mar del Plata water conference in 1977. The conference was organised to address growing international concerns about water resources and the environment, and its output stressed the need for sectoral development, the establishment and improvement of national institutions, and for greater spending in the water and sanitation sector. Both the conference and its action plan led to the organisation of the International Drinking Water Supply and Sanitation (IDWSS) 'Water Decade', 1981-1990. The Action Plan and Water Decade promoted national, government-led development in the sector, crucial to which was the improvement of coverage levels. The action plan also emphasised the need to include water and sanitation activities in integrated rural development projects.

With the establishment of the UN Water Decade, national targets were set leading towards a 'super goal' of universal coverage by 1990. As service provider the government remained the primary focus of development efforts, although the participation of communities in decision making was also emphasised. However, largely due to the coincidence of wider social and economic change during the 1980s, including the debt crisis and the economic slump in the industrialised North, many national targets proved unreachable. Each country was encouraged to define 'access' by its own criteria. This was frequently taken to mean at least 20 litres of safe water per person per day at a source within 1.6km (UNICEF, 1995). At the end of the decade "progress fell far short of the goal of universal access" (UNICEF, 1995); some 1.3 billion people worldwide still lacked access to safe water and 1.9 billion had no access to appropriate sanitation<sup>6</sup>. By and large the 'super goal' had been the victim of both changing external environments and its own ambition.

Whether the achievement of coverage levels could be translated into 'reaching the poor' is a debatable point, with repercussions for current approaches. The establishment and measurement of targets by national governments and the international community raises key methodological and substantive questions: 1) is the methodology adopted to establish whether or not targets have been reached universally applicable<sup>7</sup>, and, therefore, useful for comparison? 2) **Is the attainment of a target equivalent to a *sustainable* level of resource**

---

<sup>6</sup> The problem of existing estimates (including that 1.4 billion lacking access to safe water) is that they do not take into account lack of repair and maintenance to existing systems, and, hence, tend to underestimate the real access levels. (WaterAid, 1996)

<sup>7</sup> The 1996 Water Supply and Sanitation Sector monitoring Report for 1996 states that "*Throughout the 1980s and early 1990s, it has been apparent that most countries do not have adequate systems for collection, compilation and analysis of water supply and sanitation coverage data*" (p.14) (quite apart from the fact that access levels are defined nationally and, hence, are largely incomparable).

provision?

Without a measure to cross-reference rates of progress against, there is difficulty in targeting resources to the most needy areas (or, in current thinking, trying to stimulate demand in those areas). In addition where, for example, the minimum daily level of provision is established on paper (by measuring distance to the water point and dividing the population by the water point yield) can equal access to the resource be assumed for all of a given population level? And how long will that level of coverage remain sustainable, before diminishing due to maintenance problems and loss of management capacity<sup>8</sup>?

**Box. 3.0 The poor and the World Bank's approach to water supply: paying the price?**

The World Bank's main priority is to reduce poverty levels. There are certain approaches within its own thinking which suggest problems in reconciling different lesser goals with this 'super goal'. While the question of poverty focus and the demand response approach has been raised in a number of forums, there appear to be earlier theoretical and operational problems. "If responsibility for operations is to be decentralized, care must be taken to ensure that local governments or beneficiary groups have enough funds and technical skills to handle the work. *In some instances, there may be tension between the financial sustainability criterion for including communities in a programme and the poverty criterion for being able to reach the poorest clients...* Governments often oppose charging for water drawn from handpumps and stand posts for political and technical reasons. *But there is clear evidence that poor people will pay often a substantial part of their income if they can be assured a regular supply*'. (emphasis added) (World Bank, 1993, 186-87).

Targets and goals have often been set during international conferences, serving as policy forums for international agencies as much as for the establishment of sound decision making. In many cases the cost implications of targets appear to have been unchallenged<sup>9</sup>. Many of the targets have been supply-driven lead by have been institutional political motivations. One of the enduring problems of targets and the statistical monitoring of success is that global statistical figures for coverage also hide wide sub-sectoral and regional differences. The 1996 WHO monitoring report stated that while the rate of increase in water supply provision was reported to be some 8% a year (1990-1994), in comparison to the 1980s this increased improvement represented mainly a significant change in Asia and the Pacific regions (accounting for some 90% of progress achieved in water supply and sanitation). Within the sector, sanitation has lagged behind water supply and levels have actually fallen in urban and rural areas. By the end of 1994 only 18% of the world's population had adequate access to sanitation (WHO, 1996).

The relative lack of progress in sanitation development has important implications for current sectoral approaches. While at the end of the Water Decade the focus remained on the provision of basic needs for the poor, 'some for all rather than all for some' (New Delhi statement, 1990), wider shifts in international development had changed donor thinking, and,

---

<sup>8</sup> Commonly referred to as 'hardware' and 'software' problems.

<sup>9</sup> WHO estimates that during the 1980s an average of \$13 billion was spent annually in developing countries for water supply and sanitation (only a quarter of which was spent in rural areas); UNICEF estimated in the mid-1990s that an additional \$5 billion a year would be needed over 10 years in order to reach the 'unserved' in rural and peri-urban areas with water and sanitation services (UNICEF, 1995)



in particular, led to a greater emphasis on sustainable development<sup>10</sup>. Sustainable development was associated with sustainable use of natural resources, and this in turn was linked to the idea of resource conservation, and (most significantly) maximising efficient use of scarce financial resources. Sustainable approaches became associated with cost-effectiveness and cost-recovery. After Water Decade the overlap of the idea of sustainability and increasing concerns about the use of scarce financial resources has had enormous subsequent implications for a poverty focus in the water and sanitation sector.

By the early 1990s the international consensus - driven by the World Bank and UNDP - viewed state provision of services as both expensive and unsustainable, particularly given the prevailing economic state of many developing countries. This scepticism over the role of government was reflected in the idea of finding the 'lowest appropriate level' of management (the assumption being that in many cases government was the least appropriate level). Allied to this idea was the perceived relationship between sustainability and water as an 'economic good' (Dublin, 1992). As a follow-up to Mar del Plata, the Dublin conference led to the explicit statement that there had been a past 'failure' to recognise that water was an 'economic good'. It was implicitly stated that there had been a failure to appreciate the need for consumers of water to pay a price for the resource. The UNCED 'Earth Summit' and Agenda 21 further removed service functions from government. It did this by emphasising that planning and implementation should be based effectively, on the demand of users (implying rather than on coverage levels set by planners) and that willingness to pay was a 'secondary but vital' desired behaviour within communities. These ideas encompassed some of the wider thinking on poverty, particularly through their emphasis on communities as *participants* in a development process, but they also raised serious questions about the capacity of poor communities to capture the benefits of developments in this more competitive environment.

In the late 1990s the World Bank began to formalise these ideas under the 'Demand-Responsive Approach' (DRA)<sup>11</sup>. The link between sustainability and service delivery is made between the community as the end consumer and its willingness and ability to manage the payment of a tariff (hence cost recovery) in order to gain access to the resource<sup>12</sup>. In so doing the World Bank's approach emphasis appears to be on the water supply sub-sector rather than on how to improve sanitation levels or hygiene promotion. Planning at a national government level consists of providing the right external environment within which communities can know what they need and can afford (i.e. how much each level of service costs and what it will provide a community with). This allows new service providers such as private companies and NGOs to operate effectively. It is not an approach which seeks explicitly to 'reach the poor', but one which expects to improve the overall cost-effectiveness and sustainability of supplies within the sector.

---

<sup>10</sup> The concept of 'sustainable development' became particularly widespread after the World Commission on Environment and Development report was published, *'Our Common Future'*, in 1987.

<sup>11</sup> In May 1998 the World Bank brought together hundreds of sectoral experts and field staff from a range of agencies, governments and the private sector at a workshop in Washington on DRA; a year later this was followed up with an internet conference on the approach. In both forums serious concerns were raised about the implications of the approach for reaching the poor.

<sup>12</sup> The New Delhi statement (1990) made explicit reference to the need to mobilise additional funds from existing and "new sources", including governments, donors and *consumers*" (New Delhi Statement, 1990). It continued, "Restructuring and utilisation of funds for sector investments and setting user charges are key issues in sector finance...there must be widespread promotion of the fact that *safe water is not a free good*. Appropriate charging mechanisms must be adopted, which reflect local socio-cultural and economic conditions. Collection should be decentralised so that revenues are available for management and operation of services" (Emphases added).

DRA's emphasis on water supplies rather than sanitation and hygiene promotion poses a number of questions. While water can be treated as an 'economic commodity', difficulties arise in translating this approach to the integration of water, sanitation and hygiene promotion. As noted, at a global level sanitation has already lagged well behind water supply provision in the achievement of development targets. DRA appears to further disengage sanitation from water supply. One difficulty lies in the mechanisms for eliciting demand for a service which does not provide a household with an economic asset or with something that is consumable<sup>13</sup>. The development of an integrated approach which focuses on health impacts above all followed evidence that more and better quality water was a necessary, but not a sufficient factor in causing health benefits. Improved water handling and hygiene behaviour within the household was included to help reduce contamination from source to consumption via the faecal-oral transmission route (Cairncross, 1992). **A demand-responsive approach seems to challenge the consensus which has built up around the need for integrated interventions in order to achieve the desired health benefits.** This is discussed further below.

### 2.3 Implications for an integrated poverty reduction approach

Shifts in thinking on water and sanitation development have a number of implications for how a poverty-reduction approach should be undertaken and at what level there can be integration of water, sanitation and hygiene promotion. Given the current policy environment, the central challenge is to this very notion of 'integration'. This paper suggests an integration of a different kind which pays closer attention to the link between water supplies and urban and rural livelihoods. This reflects the need to bring a wider conception of poverty into the water and sanitation sector; one which addresses poverty as a livelihoods issue for individuals, households and communities. In so doing the notions of coverage and access are also challenged: **provision of a community water supply does not imply that access is universal within a community, or a household. Occupational barriers, social barriers and gender-barriers, which frequently overlap, can serve to prevent access to the resource either at the community or household level.** While health benefits are not to be 'removed' as a goal, they should be complemented by greater attention to establishing sustainable livelihoods.

The emphasis of much current water and sanitation work (see, for example, cases in Smout and Parry-Jones, 1999) is that the benefits should reach the poor (whether urban, peri-urban or rural). However two problems remain in such an approach (see Box 1.0): 1) how can project staff know whether they are reaching the poorest communities? 2) How can they ensure the poorest individuals within a community receive a share of the benefits from improved services?

Thus, in order to achieve an integrated poverty reduction approach, the changing policy directions and the remaining emphasis on integrated approaches to achieve health benefits raise two key questions:

1. Is the achievement of health benefits a sufficiently broad indicator of impact to encompass other negative and positive benefits on the poor, as individuals and as households?
2. If not, then can a different kind of integrated approach which takes a broader view be reconciled with a demand-based approach?

---

<sup>13</sup> Although it is recognised that sanitation can be perceived as an economic asset if the link between its provision and better health and household productivity is accepted by beneficiaries. It also can have important status value within communities.

#### Box 4.0 Livelihoods<sup>14</sup>, drought and vulnerability

Understanding the livelihood mechanisms of individuals and households within communities can help in planning water and sanitation interventions. A livelihoods approach aims to build a baseline of data on the food economy of households and the links between the food economy (and, by extension nutrition and income within a household) and proposed water and sanitation work. Under such an approach the impact of water and sanitation work should be evaluated on the basis of the wider socio-economic impact on households rather than narrowly-defined indicators (such as incidence of water-related disease or distance to water point). Communities should be encouraged to develop methods of self monitoring of impact at the household level based on broader impacts including use of extra time, impact on livestock holdings, household gardens, income levels, schools attendance, etc.

Water will be a particularly significant livelihood asset in areas of scarcity which are drought-prone. In such areas a livelihoods approach should aim to build community, and district-level water point mapping capacity and gather information about the use of existing resources (studying the impact of past drought events through the use of key informants is also important to provide a comparative perspective). A livelihoods approach would build on existing community-based approaches to project development rather than adopting new 'emergency' procedures in the event of a drought. They would also seek to ensure that responses tackle the water needs of essential assets such as livestock holdings as well as those of people. The basic tenet of such an approach would be planning water provision to help safeguard the assets of the poor (adapted from Nicol, 1998a)

The policy shift towards DRA has implications for both inequality (relative poverty) and absolute poverty. The potential for demand-based initiatives to implicitly favour the better off (in income and basic needs) lies in the wider dimensions of poverty discussed above, such as social marginalisation and exclusion from political processes. In addition the emphasis on payment at source (volumetric pricing) has consequences for the ability of the poorest to use water as an asset to increase income and well-being. **While 'some for all' might be necessary to ensure human survival, it is not necessarily sufficient to assist the poor, particularly in rural areas, in lifting themselves out of poverty.**

There are other cultural and social barriers to adopting a new resource-use regime, not least the problem of beneficiaries not regarding cost recovery as a priority. Resistance to cost recovery may be found where ground water has previously been perceived as a free resource with open access to all (Good, 1997). Problems of taking a communal approach to the provision of supplies and low-cost latrines have also been highlighted in evaluation studies (eg. White, 1998). White concludes that "WTP (Willingness to Pay) studies or participatory approaches are better methods for ensuring that the poor will benefit from new water facilities,

---

<sup>14</sup> A livelihood may be defined as comprising the capabilities, assets and activities required for a means of living. A livelihood is sustainable when it can cope with, and recover from, stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (from DFID Sustainable Livelihoods Guidance Sheets, 1999)

than the assumption that public water points are equitable" (White, 1998). The two may not be mutually exclusive, but clearly there is need for further research in this area.

Approaches which advocate participatory or WTP appraisals beg the question that if a broad conception of poverty is taken; including income, human capabilities and inclusion in social and political decision making; then how is actual capacity to organise decision making measured. As noted in Box 1.0, local elite interests allied to higher order political interests can act as barriers to participation and can seek to capture the benefits for themselves. In addition, where the poor are subject to natural or human-induced vulnerability, the knowledge and level of certainty which are required to take decisions about community management and ability and WTP may not exist.

The implications for a poverty-reduction approach would appear to be that water supply and sanitation and hygiene promotion should look beyond health impact (via pathogen transmission routes only) and relate to a wider set of socio-economic indicators many of which, such as nutrition levels, themselves have significant health impacts. One of the main areas where a greater focus could lie is in time-savings and their economic impact at a household level (Churchill, 1989). Time-saving could be more closely related to economic activities and be included with other indicators of participation and access to water for different uses. The emphasis would be on water supply and, while the role of sanitation and hygiene education would remain, it may not necessarily be integrated into all projects, for instance where household small livestock are a primary focus of livelihood activity.

### 3.0 Future directions

#### 3.1 From a supply to a demand-based approach: incorporating poverty

Incorporating the poor in an explicitly poverty-focused approach to water and sanitation development is complicated by the variability of poverty indicators, conceptions of the poor and because of the invisibility of many of the barriers to access. The broadening of conceptions of poverty challenges many facets of existing approaches. **While a safety net approach might help to prevent those in absolute poverty from failing to access vital resources for survival ('some for all'), it would remain more a case of treating the symptoms rather than the causes.** Given that even the World Bank recognises several dimensions to poverty, over emphasis on health benefits in water and sanitation work only serve to limit the approach when a broader view is demanded.

If, as a starting point, the most immediate benefits to the poor are savings in time which a new or improved source will permit, then the focus should be on how these benefits can translate into individual and group productive activities. Even if there is no time saving and perhaps more time is spent collecting water, this might be measurable in increased supply yield and, hence, an excess being combined with other assets to generate increased income or perhaps, better nutrition through increased food production. Benefits will have different impacts according to the livelihood strategies employed. Hence a clearer understanding of the links between livelihoods and water is important (see Box 5.0) . Such an approach views water not simply as a 'consumable' economic good, but as a productive asset (see Box 5.0).

**Box 5.0 Water, household assets and poverty - an example from Kenya**

A failure in water supply can affect the availability of other assets and have a knock-on effect on the income of the poor. In areas to the south of Wajir, Northern Kenya, those with the means to move away from the drier areas - often described as those having pack animals and the money to pay for water for their herds at distant boreholes – have done so, staying away for more than a year. In Wajir, as in many pastoral areas of east Africa, drought in the 1970s and 1980s led to a large class of people falling out of the pastoral economy. They now lead sedentary lives, and are reliant on those who are still pastoralists as a market for firewood and other gathered resources and for labour opportunities. The movement of richer pastoralists away from their normal dry-season grazing areas meant that the poor lost their patrons. A water failure affecting one group led to the loss of the asset of social networks for another. Though they still had labour and access to firewood, they were unable to combine these with a market to produce revenue, and this reduced their ability to get money to buy food. (Adapted from Paul Clarke, in Nicol, 1998).

### 3.2 Widening our understanding of water and sanitation

Bringing in a wider approach to poverty reduction indicates the need for a broader understanding of water use by individuals within the household and, by extension, the use of a broader notion of household water resources<sup>15</sup>. One of the main requirements in incorporating the poor more fully, particularly in light of the increased emphasis on demand-based approaches, is to understand the links between water and sanitation and the household economies of the poor. How do the poor achieve their livelihoods? How sustainable are these livelihoods? And how are different levels of poverty associated with different livelihood strategies? The health-poverty link is insufficient alone as a basis on which to build a poverty-reduction approach, given the multidimensional nature of poverty. Given the close association between poverty and food insecurity there is a greater need to look at water as a productive asset.

### 3.3 Conclusions

As mentioned at the beginning, in mapping out a suitable poverty reduction approach, a key criterion should be its flexibility - both to the different facets of poverty and to the changing environments in which people fall into and out of the poverty trap. A three-tiered approach appears the best way forward, incorporating project, sectoral, and global levels.

#### 3.3.1 Project approach - achieving equity in access

Equity is a central concept in poverty-reduction and is at the heart of current global concerns about the increasing poverty gap. Equity in water and sanitation means a number of inter-

---

<sup>15</sup> Therefore, it may become necessary to look at water resources management, rather than simply water supply and look at catchment management and watersheds – particularly where surface water sources are important.

related themes: decision making, social access to the resources, and financial cost to consumers (the poor paying 5-10% of their income compared to a lower proportion among the better off, is clearly an inequitable situation). **Implied here is that the approach at a project level should focus on overcoming the social and economic barriers to access which exist within and between communities, and within and between households. This will require identification (whether from the outside or by the community) of who are the poorest, and what are the major social and cultural barriers to accessing resources and/or the means to channel demands.** The individual level is also important and should be emphasised in gender-based approaches which seek to identify the gender constraints, and the implications of gender and power relations for wider social exclusion from safe and reliable supplies. Careful consideration should be given to the problem of community institutional structures creating barriers to decision making for the poorer segments of a community. Current approaches to community participatory decision making should widen to mapping out the social and cultural barriers currently determining access levels.

*Measuring impact:* measuring equity of access can only be successfully accomplished through participatory monitoring and evaluation by the poor within communities. In some cases measuring reduction in social conflict over water may be necessary.

### **3.3.2 Sectoral approach, achieving socio-economic benefits**

At a sectoral level, the approach should aim to maximise the socio-economic benefits of better targeting of water and sanitation development through linkages with other sectors (though not following the top-heavy institutional development of the earlier 'integrated development' projects of the 1970s and early 1980s). In many developing countries sectoral-planning approaches are being encouraged. At this level greater emphasis should be placed on achieving added value in socio-economic benefits, some of which include health benefits, through integrating an understanding of the livelihood links of water and sanitation development between sectors (e.g. between agriculture and water, and between health and hygiene education). Health benefits should be seen in their own right and as an outcome of broader socio-economic benefits. Greater emphasis should be given to the economic importance of water supplies at a household level rather than the expected health benefits. **The key approach involves looking at water as an input into household and individual livelihoods, as well as simply a consumption good – in other words as a truly economic resource.**

*Measuring impact:* measuring impacts at a sectoral level may involve indicators such as water used in agriculture by households and communities, reduced vulnerability through better seasonal supply for, say, livestock and attendance at school, perhaps by girls through improved water and sanitation (the former reducing the collection burden; the latter increasing their desire and ability to attend school). The emphasis will be on both quantitative and qualitative indicators.

### **3.3.3 Global approach - achieving rights**

Global governance and resource management and allocation will become a major development challenge, particularly as water security decreases in the 21st century. The emergence of greater governance and greater water insecurity is likely to increase the speed and depth of decision making in the sector. This is particularly prevalent for regions such as Sub-Saharan Africa which have been getting poorer in real terms and yet face the most acute water scarcity challenges. If mistakes are made, decisions on resource allocation and

management will become much more costly and the impact on poor livelihoods much greater. Achieving rights to even the balance of 'some for all' will become major issues for the populations of such regions and will require advocacy work at a civil society level and research aimed at influencing the global policy level, particularly within the Global Water Partnership. The flows of scarce financial resources, the roles of the growing water multinationals and the flows of aid will all have to focus far more closely on provision to water-scarce regions.

*Measuring impact:* Global commitments to achieving the right for all to a basic minimum of water and sanitation provision have been repeated frequently. However, the new policy environment (including an increasing role for the private sector and NGOs) and the new global institutions suggest the need to develop better ways of establishing and monitoring commitments, beyond the setting of targets. Process indicators and monitoring of approach may well have to replace coverage levels and simple calculations of access. In addition, at a financial level, the importance in measuring global poverty impact may become the monitoring of shifts in cost burden from governments to communities and, by extension, to poor households and individuals<sup>16</sup>. **If rights are to be translated into institutional duties then a close monitoring of the policy development within the sector is an essential task in order to ensure that there is 'some more for the poorest' in the coming century.**

---

<sup>16</sup> If the poor are expected to pay for the minimum daily requirement of, say, 20 litres per capita per day and are assumed to number some 1.4 billion, given a nominal amount of 5 cents for 20 litres that is the equivalent of \$70m a day being spent by the poor on water. That is \$25.5 billion a year, or at least double the average amount spent annually on water during the Water Decade.

## References

Cairncross, S (1992) Control of enteric pathogens in developing countries, Environmental Microbiology, Wiley-Liss Inc.

Churchill, A, (1987) Rural water supply and sanitation: time for change, World Bank Discussion Paper, Washington D.C.

Collett, David (1989) 'Non-government organisations: why do they matter?'. in World Water '89, Thomas Telford Ltd, London, 1989

Commonwealth Secretariat (1993) Strategies for Poverty Reduction – Technical papers from a Commonwealth Consultation on Rural Poverty Alleviation, Colombo, Sri Lanka, October 1992

Good, Anthony (1997) 'Social Issues in NGO Water Projects', in Ian Smout (ed) *Water and NGOs - Workshop Proceedings*, WEDC, Loughborough University

Johansson, Bengt (1996) 'Support to Water Resource Management in Developing Countries - SIDA's experiences and policies', SIDA, Stockholm, September

Killick, Tony (1999) Making Adjustment Work for the Poor, *ODI Poverty Briefing*, May

Maxwell, Simon (1999) 'The Meaning and Measurement of Poverty', *ODI Poverty Briefing*, February

Nicol, Alan (1998) Water Projects and Livelihoods - Poverty Impact in a Drought-Prone Environment, report of DFID-funded workshop, Harare, October 1997, Workshop Report, Save the Children Fund

Nicol, Alan (1998) Carrying the Can - Children and their Water Environments, Save the Children Fund Working Paper 18

Sida (1996) Promoting Sustainable Livelihoods – A Report on the Task Force on Poverty Reduction, Stockholm

Smout, Ian and Sarah Parry-Jones (eds) (1999) Lessons Learned from NGO Experiences in the Water and Sanitation Sector, WELL (Water and Environmental Health at London and Loughborough)

UNDP (1999) Human Development Report, UNDP New York

UNICEF (1993) Planning for Health and Socio-Economic Benefits from Water and Environmental Sanitation Programmes - A Workshop Summary, April 21-22, Water and Environmental Sanitation Section Evaluation and Research Office, UNICEF, New York

UNICEF (1995) Strategies in water and environmental sanitation, UNICEF, New York

WaterAid (1996) Strategic Framework, WaterAid, London

Watkins, Kevin (1995) The Oxfam Poverty Report, Oxfam, Oxford



World Bank (1990) World Development Report – Poverty, Washington D.C.

World bank (1993) Poverty Reduction Handbook, The World Bank, Washington D.C.

Young, Gordon, *et al* (1994) *Global Water Resource Issues*, Cambridge University Press