

Water for basic needs

Len Abrams, 18 July 2001
(Commissioned by the World Health Organisation
as input to the 1st World Water Development Report)

Introduction

Human life, as with all animal and plant life on the planet, is dependent upon water. Not only do we need water to grow our food, generate our power and run our industries, but we need it as a basic part of our daily lives - our bodies need to ingest water every day to continue functioning. Communities and individuals can exist without many things if they have to - they can be deprived of comfort, of shelter, even of food for a period, but they cannot be deprived of water and survive for more than a few days. Because of the intimate relationship between water and life, water is woven into the fabric of all cultures, religions and societies in myriad ways.

Water for basic needs (households, services) represents a relatively small amount of the total quantities withdrawn for other uses. Yet, although many fortunate people throughout the world are able to take water for granted where it is available, for an estimated 1.1 billion people - water rules their daily lives with the cruel irony that it is often both the most precious and sought after of commodities, requiring grinding daily labour to acquire.

At this point in the twenty first Century we are surrounded by the marvels of modern communications, electronics and bio-mechanics; we have charted the human genome and yet we have not mustered the skills, resources and will to provide all members the global population with something as basic as safe water supply and adequate sanitation.

What are basic human needs for water - how much do our bodies need? "Basic needs" go beyond what we need to drink or ingest through our food for daily survival (about 5 litres per person per day [Gleick, 1999]) - it includes the need for water to maintain a basic standard of personal and domestic hygiene sufficient to maintain health. It is not sufficient merely to have access to water in adequate quantities - the water also needs to be of adequate quality to maintain health and it must be free of harmful biological and chemical contamination. Water gathered from unprotected sources often does not meet these criteria and places the users at risk. Often water which is of a sufficiently high quality at the point of collection is contaminated before it is used because it has to be carried and stored before use or because of unhygienic practices.

Water provision cannot be separated from two other inter-related factors - sanitation and health. This is because one of the primary causes of contamination of water is the inadequate or improper disposal of human (and animal) excreta. This often leads to a cycle of infection (resulting primarily in diarrhoeal diseases) and contamination which remains one of the leading cause of illness and death in the developing world.

Providing for daily water needs is a burden on households with inadequate services in a number of ways, in addition to the direct health threats. Often water has to be carried long distances to the house which takes time and effort, a burden borne mainly by women and children. In urban and urban fringe areas water is often only available from vendors at a price which is usually several times more expensive than the water provided through formal services and of poor quality.

Inadequate water supplies are both a cause and an effect of poverty. Invariably those without adequate and affordable water supplies are the poorest in the society. The effects of inadequate water supply - disease, time and energy expended in daily collection, high unit costs, etc. - exacerbate the poverty trap. Provision of basic daily water needs is yet to be regarded by many countries as a human right

Setting Standards for basic water needs

The minimum amount of water required to meet basic needs vary depending upon what is included as "basic needs". The figures vary from 20 to 50 litres per person per day. Setting specific quantities as standards should be generally avoided, recognising the importance of context and the need for each country or region to set appropriate goals. Standards need to be set with great care as they can be counter productive and result in communities facing "all or nothing" alternatives rather than an interim improvement of their current services.

Preferable to rigid standards are a set of development goals which allow both the possibility of monitoring progress and the opportunity for iterative improvements of current service levels towards the goals.

An example where standards were shown to be counter-productive was in South Africa where insistence on both affordability and a pre-determined standard of 25 l per person per day were mutually exclusive resulting in some poorer communities not being serviced - policy has subsequently changed. [Rural and Peri-Urban Water Supply and Sanitation in South Africa Appropriate Practice Conference - 14 - 17 March 1999]

This chapter will explore the growing awareness over the last few decades of the enormity of the problem, the development of thought and practice as we have attempted to meet the challenge, the state of affairs in the world at present and the options for the future.

Water, sanitation and health

Water, sanitation and health are closely inter-related. In wealthier communities this connection is taken for granted but in poor developing communities the connection is a stark daily reality.

"Water and Health - two precious resources linked to one another",

Water for Health, World Water Day, 2001, WHO

Water and health are related in a number of ways.

Firstly, there is the direct impact of consuming contaminated water - this is known as '**waterborne disease**' and includes diarrhoea, typhoid, viral hepatitis A, cholera, dysentery.

Secondly, there is the effect of inadequate quantities of water being available for personal hygiene or the of un-hygienic practices which contaminate water and cause diseases. Without enough water, skin and eye infections (including trachoma) are easily spread, as are the faecal-oral diseases. These diseases are known as '**water-washed diseases**'.

Thirdly, there are '**water based diseases**' and '**water-related vector-borne diseases**' in which the aquatic environment provides an essential habitat for the mosquito vectors and intermediate snail hosts of parasites that cause human diseases. Malaria, schistosomiasis, lymphatic filariasis, onchocerciasis and Japanese encephalitis are examples of these diseases.

Fourthly, there is **chemically contaminated water** such as water containing excessive amounts of arsenic or fluoride. Some contaminants are added to drinking water as a result of natural processes and some due to human activities such as industry and mining. Poor communities, especially in urban fringe areas, are particularly susceptible to dangers from polluted water from a variety of sources due to lack of or poorly enforced regulation of water pollution.

The impacts on health of these factors is at a very large scale and accounts for more illness and death than any other factor in developing countries [2001, WHO]. The following impacts are the most severe:-

- There are approximately 4 billion cases of diarrhoea each year cause 2.2 million deaths, mostly among children under the age of five. Water, sanitation, and hygiene interventions reduce diarrhoeal disease on average by between one-quarter and one-third.
- Intestinal worms infect about 10% of the population of the developing world. These can be controlled through better sanitation, hygiene and water supply. Intestinal parasitic infections can lead to malnutrition, anaemia and retarded growth, depending upon the severity of the infection.
- It is estimated that 6 million people are blind from trachoma and the population at risk from this disease is approximately 500 million.
- 300 million people suffer from malaria - 1 million people die of malaria in sub-Saharan Africa each year.
- Arsenic in drinking water is a major public health threat. It is estimated that in Bangladesh, 100,000 cases of skin lesions caused by arsenic have occurred and there may be many more.
- Fluoride in low amounts in drinking water can be beneficial to dental health but excessive amounts can be toxic. An estimated 30 million people suffer from chronic fluorosis in China alone. Fluoride is also present in potentially toxic quantities in the groundwater throughout the Rift Valley.
- 200 million people in the world are infected with schistosomiasis, of whom 20 million suffer severe consequences.

The WHO and UNICEF promote three key hygiene behaviours as having the greatest potential health impact -

- Hand washing with soap (or ash or other aid).
- Safe disposal of children's faeces.
- Safe water handling and storage.

Current status

The WHO/UNICEF/WSSCC Global Water Supply and Sanitation Assessment 2000 Report provides information on the current status of basic water and sanitation services throughout the world. The report charts the developments since 1990. The current status is provided in Table 1 below:

	1990 Population (millions)				2000 Population (millions)			
	Total population (76% of global population represented)	Population served	Population unserved	% Served	Total population (89% of global population represented)	Population served	Population unserved	% Served
GLOBAL								
Urban water supply	2 292	2 179	113	95	2 845	2 672	173	94
Rural water supply	2 974	1 961	1 013	66	3 210	2 284	926	71
Total water supply	5 266	4 140	1 126	79	6 055	4 956	1 099	82
Urban sanitation	2 292	1 877	415	82	2 845	2 442	403	86
Rural sanitation	2 974	1 028	1 946	35	3 210	1 210	2 000	38
Total sanitation	5 266	2 905	2 361	55	6 055	3 652	2 403	60
AFRICA	<i>(72% of regional population represented)</i>				<i>(96% of regional population represented)</i>			
Urban water supply	197	166	31	84	297	253	44	85
Rural water supply	418	183	235	44	487	231	256	47
Total water supply	615	349	266	57	784	484	300	62
Urban sanitation	197	167	30	85	297	251	46	84
Rural sanitation	418	206	212	49	487	220	267	45
Total sanitation	615	373	242	61	784	471	313	60
ASIA	<i>(88% of regional population represented)</i>				<i>(94% of regional population represented)</i>			
Urban water supply	1 029	972	57	94	1 352	1 254	98	93
Rural water supply	2 151	1 433	718	67	2 331	1 736	595	75
Total water supply	3 180	2 405	775	76	3 683	2 990	693	81
Urban sanitation	1 029	690	339	67	1 352	1 055	297	78
Rural sanitation	2 151	496	1 655	23	2 331	712	1 619	31
Total sanitation	3 180	1 186	1 994	37	3 683	1 767	1 916	48
LATIN AMERICAN AND THE CARIBBEAN	<i>(77% of regional population represented)</i>				<i>(99% of regional population represented)</i>			
Urban water supply	313	287	26	92	391	362	29	93
Rural water supply	128	72	56	56	128	79	49	62
Total water supply	441	359	82	82	519	441	78	85
Urban sanitation	313	267	46	85	391	340	51	87
Rural sanitation	128	50	78	39	128	62	66	49
Total sanitation	441	317	124	72	519	402	117	78
OCEANIA	<i>(64% of regional population represented)</i>				<i>(85% of regional population represented)</i>			
Urban water supply	18	18	0	100	21	21	0	98
Rural water supply	8	5	3	62	9	6	3	63
Total water supply	26	23	3	88	30	27	3	88
Urban sanitation	18	18	0	99	21	21	0	99
Rural sanitation	8	7	1	89	9	7	2	81
Total sanitation	26	25	1	96	30	28	2	93
EUROPE	<i>(15% of regional population represented)</i>				<i>(44% of regional population represented)</i>			
Urban water supply	522	522	0	100	545	542	3	100
Rural water supply	200	199	1	100	184	161	23	87
Total water supply	722	721	1	100	729	703	26	96
Urban sanitation	522	522	0	100	545	537	8	99
Rural sanitation	200	199	1	100	184	137	47	74
Total sanitation	722	721	1	100	729	674	55	92
NORTHERN AMERICA	<i>(99.9% of regional population represented)</i>				<i>(99.9% of regional population represented)</i>			
Urban water supply	213	213	0	100	239	239	0	100
Rural water supply	69	69	0	100	71	71	0	100
Total water supply	282	282	0	100	310	310	0	100
Urban sanitation	213	213	0	100	239	239	0	100
Rural sanitation	69	69	0	100	71	71	0	100
Total sanitation	282	282	0	100	310	310	0	100

Table 1: Global and regional coverage figures

The figures indicate that the number of people who do not have any form of improved water supply facility stands at 1.1 billion globally. The number of people without basic sanitation is 2.4 billion. Most of the unserved populations are in Africa and Asia, with the highest numbers of unserved people in Asia although the proportion of unserved is higher in Africa. Although these are daunting figures (one sixth of the world's population without water and two fifths without sanitation), it must be noted that progress has been made during the past 10 years despite an increase of 15% in the global population. The international target of reducing to a half the percentage of people not served with these services before 2015 is therefore a continuous race against increasing population. Taking population growth into account, to halve the proportion of unserved people by 2015 will require 2.2 billion additional people having access to safe sanitation (397 000 per day) and 1.5 billion to improved water services (292 000 people per day).

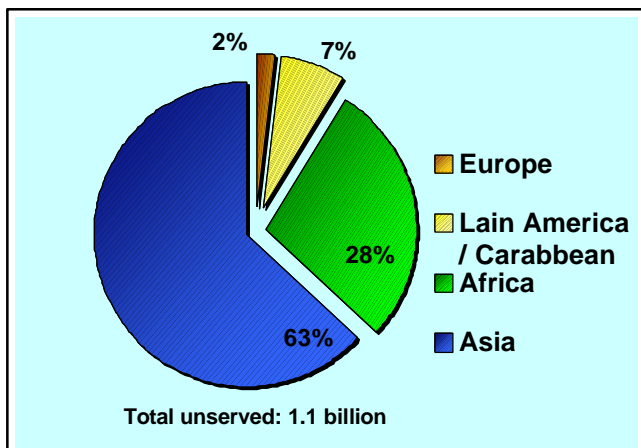


Fig. 1 - Water supply, distribution of unserved populations
Source: WHO/UNICEF, 2000

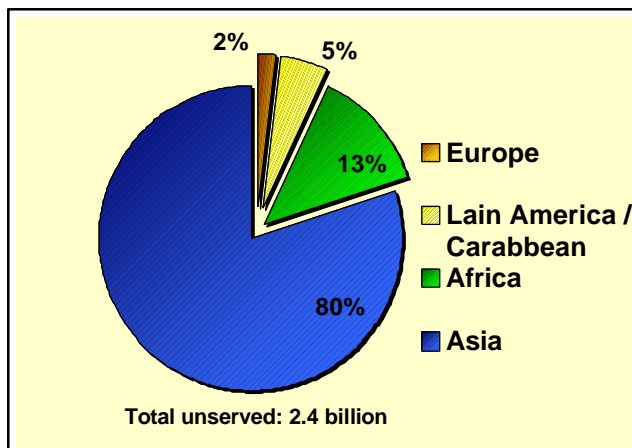


Fig. 2 - Sanitation, Distribution of unserved populations
Source: WHO/UNICEF, 2000

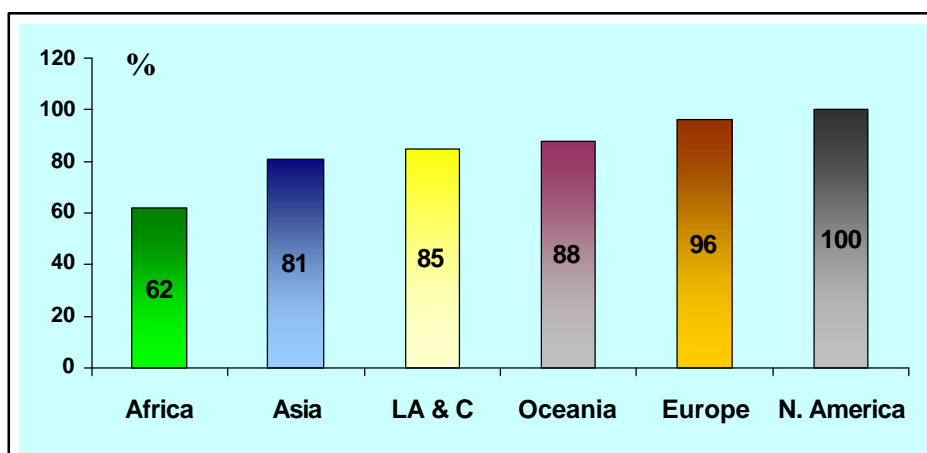


Fig.3 - Proportion (%) of population with water supply services
Source: WHO/UNICEF, 2000

Investment

It is important to review the pattern of investment for new infrastructure in the water supply and sanitation sectors to gain a perspective of the magnitude of the challenges and to determine the sources of support. All the figures quoted below were taken from the 2000 Global Water Supply and Sanitation Assessment Report.

There are four main sources of funds and resources available for investment - those from government (national, regional and local governments), private sector, external support largely from international donor sources, and the input of individuals, families and local communities. The value of the latter category is difficult to quantify in monetary terms. It is estimated that the total annual national and external investment in water supply and sanitation in Africa, Asia and Latin America and the Caribbean over the 90's was about US\$ 16 billion.

Proportion of spending on the sector by national governments

The median invested by governments for the construction of new facilities in relation to total public spending from 1990 to 2000 varies from region to region as follows:-

Africa	5.3%	Asia	3.6%	Latin America and Caribbean	8.3%
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External Support provided to financing water supply and sanitation

Part of the funding for construction of new water supply and sanitation infrastructure were provided, over the 90's, came from external support sources, in some cases, for example in Africa, these inputs exceeded investments made by national governments. This is illustrated by Fig. 4 below. The amounts provided by OECD countries have increased during the past decade with the largest contributors being Germany (US\$ 3.4 billion 1990-2000) and Japan (US\$ 9.5 billion 1990-2000)

Year	Water supply and sanitation as a proportion of total co-operation (%)	External support to water supply and sanitation (US\$ millions)
1986	3.4	1034
1987	3.7	1323
1988	4.2	1866
1989	3.8	1508
1990	3.2	1844
1991	3.2	1835
1992	4.2	2124
1993	5.5	2727
1994	5.1	2552
1995	5.6	3034
1996	6.6	2907

Table 2: External financial support to water supply and sanitation
Source: OECD, 1998

Disparity between spending on water supply and sanitation

Investment figures indicate that a higher priority has been given over the 90's for water supply as opposed to sanitation, both through national governments and by the international community.

Region	Water supply (US\$billion)	%	Sanitation (US\$billion)	%
Africa	4.091	88%	0.542	12%
Asia	6.063	85%	1.104	15%
LA & C	2.41	62%	1.503	38%
Total	12.564	80%	3.148	20%

Table 3: Table annual investments in water supply and sanitation indicating proportional disparity
Source: WHO/UNICEF, 2000

Comparison with Agenda 21 investment requirement estimates

The investment estimates made by the Rio Conference Secretariat to implement Agenda 21 proposals between 1993 - 2000 were 20 US\$ billion average total annual cost, twice what was being spent at the time, which included 7.4 US\$ billion from the international community. The actual expenditure, in terms of the 2000 Global Water Supply and Sanitation Assessment Report was 15.6 US\$ billion with an average of 2.4 US\$ billion derived from international sources over the period 1990 - 1996 (as per Table 2 above). This represents a 25% shortfall in total expenditure and a 67% shortfall in international spending.

Quality of service

The coverage figures quoted above do not indicate how reliable services are, both in terms of the availability of services and the quality of water provided through them. Unreliable services force consumers to use alternative, less safe sources and lead to problems with user satisfaction, cost recovery, vandalising of facilities, etc.

Dereliction and intermittent services

There are serious problems in developing regions with the sustainability and reliability of services. Dereliction rates and intermittent failure of services is estimated to be as high as one third (WHO/UNICEF, 2000). Whilst this figure represents an average, they may well underestimate the real dimension of the problem because records of failures and repairs are often not adequately kept and may be regarded as an embarrassment to authorities. What constitutes a "functioning" service varies in definition, and is often regarded as a system which operates at above 50% of its design capacity.

Region	Africa	Asia	LA & C	N. America	Oceania	Europe
% functioning	70	83	96	97	93	100

Table 4: Median percentage of rural water supplies which are functioning more than 50% of design capacity for more than 70% of the time on a daily basis
Source: WHO/UNICEF 2000

Lack of disinfection

Many urban water supply systems in Africa, Asia, Latin America and the Caribbean do not disinfect the water supplied to consumers. This is most likely as a result of lack of technical capacity, cost, and operation and maintenance problems.

Lack of treatment of waste water

The discharge of untreated sewage presents a particular health hazard, especially to poor communities in urban contexts who have to rely on unprotected water as their main sources of supply. In developing regions, waste water is treated in only a minority of situations, but even in industrialised countries treatment is not universal. See Figure 5.

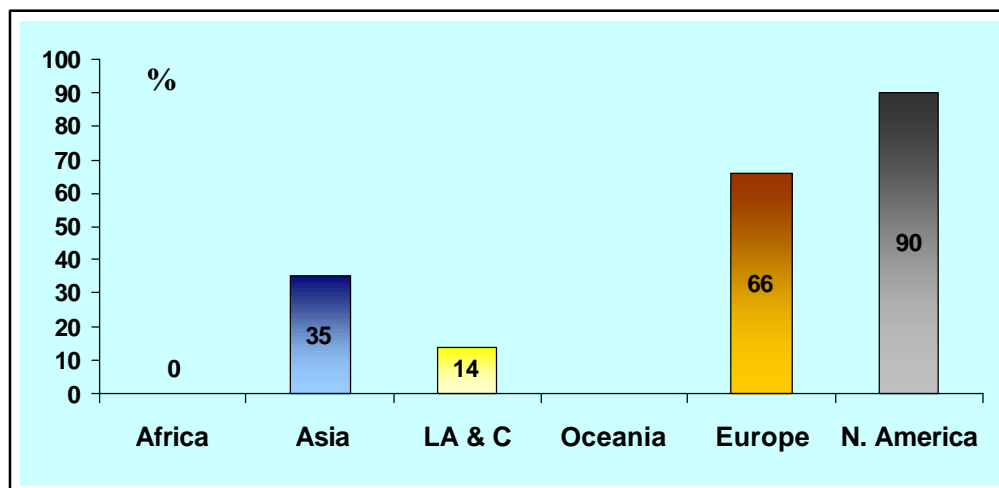


Fig. 5: Median % of wastewater treated by effective plants
Source: WHO/UNICEF 2000

Large Cities

The most striking trend during the past 10 years has been the comparatively rapid growth of population in urban areas. In 1990 43.5% of the world's population lived in urban areas - by 2000 the proportion had grown to 47%. This trend is

likely to continue and will present particular challenges to governments, local authorities and communities in the future. Much of the growth is in informal settlements where service provision is particularly difficult, where the population is poorest and where health is particularly vulnerable to the effects of poor services and poor shelter.

A considerable problem facing many cities is that of unaccounted for water. This generally illustrates the efficiency of providers although not all of the unaccounted for water is wasted - some is utilised by consumers but not recorded as such or paid for.

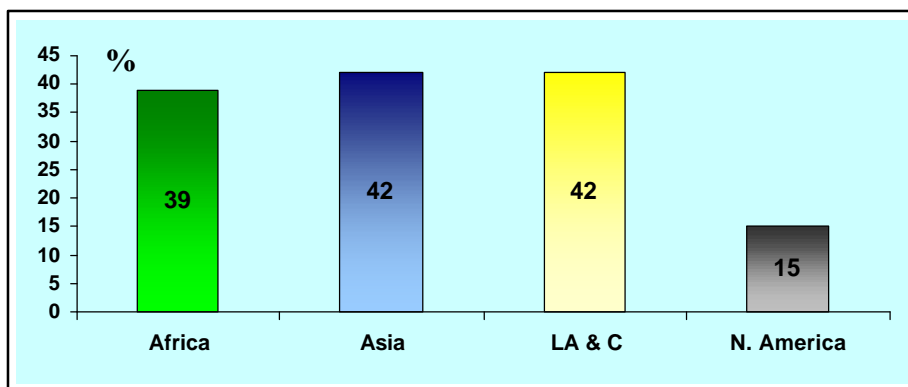


Fig. 6: Mean unaccounted for water rates in large cities
Source: WHO/UNICEF, 2000

History of learning

Over the past 30 years the problems facing developing countries in the provision of basic services has been increasingly clarified. During this period the complexity of the challenges and solutions have emerged. Successive lessons have been learned and different approaches have been taken covering a wide range of issues in the search for sustainable, replicable services provision. It is instructive to review the lessons learned. Each emerging lesson increased our understanding of the problems and our awareness that the answer did not lie in any particular avenue but rather in an integration of all the elements and a sober appreciation of the complexities of human, social, political and economic interaction.

"Dublin Principles"

- Water has multiple uses and water and land must be managed in an integrated manner,
- Management must be participatory and undertaken at the lowest possible level,
- Positive policies must be formulated to address women's needs and to empower women, and
- Water should be recognised and treated as an economic good.

*World Conference on Water and the Environment
(Dublin, 1992)*

- During the 1960s and 70s the prominent assumption was that the answer lay in engineering solutions. When such approaches did not lead to an appreciable impact on the problem, notwithstanding important lessons being learned regarding the need for "appropriate technology", it began to become clear that the issue was not merely a technical problem but a complex social, economic and political problem.
- During the 1980s, the International Drinking Water Supply and Sanitation Decade (1981 - 1990) was launched, the achievements of which fell far short of the targets but a great deal was learned. These were extensively discussed in various international forums and converted into global statements including the "**Dublin Principles**" developed at the World Conference on Water and the Environment (Dublin, 1992).
- **Participatory approaches** and the engagement of communities in development was increasingly regarded as essential during the late 80s and early 90s. This developed and matured from the mere engagement of communities to the notion of **demand responsive approaches** (DRA) and community based management which seek to put communities at the centre of the process. (*The Fourth Country Level Collaboration Workshop in East and Southern Africa (ESA), November 1999, Mpumalanga Province, South Africa - THE MPUMALANGA STATEMENT*)
- During the 90s, as real inroads into the backlog of services throughout the developing world remained elusive, the political importance of basic services began to be recognised in many emerging democracies. This had both positive and negative effects - the importance of **political will** in the allocation of resources became increasingly apparent but the politicisation of water supply and sanitation also had the effect of raising unrealistic expectations in many communities only to lead to disillusionment and further stagnation.

- The **private sector** became increasingly regarded as an important partner in sector development. A variety of different mechanisms have been developed for the engagement of the private sector but there are many difficulties and complexities, resulting in both successes and failures.
- Increasingly during the 1990s it has emerged that attaining sustainability is more difficult than the initial establishment of services. **Sustainability** requires a number of technical, social, financial and administrative factors to be considered and a number of lessons have been learned relating to the economics of water supply and sanitation - whatever the policy regarding water tariffs and pricing, the provision of services incurs costs which have to be met. Significant lessons have been learned regarding levels of services, affordability and willingness to pay, but yet sustainability remains elusive. A typical example was the poor state of water supply and sanitation facilities due to inadequate operations and maintenance in developing countries. At the end of the 80's, inadequate operation and maintenance was one of the leading constraints affecting sector development. Despite huge efforts by Governments, bilateral and multilateral agencies the situation is still dramatic. In Africa alone, about 30% of the rural facilities are non-operational at any time [WHO, 2000].
- An important factor which has been identified over the 90's has been **capacity building** which has been targeted at all levels, all functions and the full range of organisations from Community Based Organisations (CBOs), NGOs, local government and national government agencies.
- In the later 90s increasing emphasis has been placed on the development of **policy and legislation**, and on institutional rationalisation. This has been in response to the recognition that water and sanitation services cannot be sustainably developed in isolation from other sectors and without an enabling legal framework. Closely related to these issues is the need for **good governance** leading to a sound public administration and effective government planning which is being increasingly emphasized. This includes the need to address issues such as the wide ranging effects of corruption on the delivery of services.
- Access to basic water supply and sanitation services are increasingly acknowledged as fundamental for health and development, and are being increasingly accepted as a fundamental **human right**.
- Throughout the past 30 years **sanitation and hygiene education** have enjoyed less emphasis and a lower priority than the provision of water supply. There are numerous reasons for this but the result has been that the potential health and developmental impacts of achievements in the water supply sector have not been fully realised.

Many of the proponents of each of these different factors were tempted to regard their area of interest as the solution to the enduring problem of sustainability. However experience now indicates that there is no single or simple solution to the complexities of service provision - there is no "silver bullet" - but rather the need for a holistic approach which incorporates all of the lessons learned. Further, the complexities of providing basic services appear to be fundamentally dependent upon factors which are not within the specific sectors of water, sanitation and hygiene, but on a number of underlying economic and political factors which are not directly related to these sectors.

Reviewing targets with increasing realism

One indication of the increasing realism with which the problems of providing services have been viewed over the years is the setting of targets for the provision of universal basic water supply and sanitation services. The target set for the 1981-1990 International Drinking Water Supply and Sanitation Decade was to provide safe drinking-water and sanitation to all underserved urban and rural areas by 1990. At the World Summit for Children, in September 1990, heads of State called for both universal access to water-supply and sanitation and the eradication of guinea worm disease by 1995. Section 49 of Chapter 18 of the Rio Earth Summit's Agenda 21 (1992) suggests that a more realistic target would be 2025.

Agenda 21 also makes the important point that "specific targets should be set by each individual country." (Section 18:49). This is echoed in Vision 21's approach to proportional targets (see below). Recognition is increasingly being given to the reality that targets for the provision of basic services cannot be set within the water sector alone but need to be established in conjunction with a variety of other issues, chiefly poverty eradication, which involves a wide range of factors not specifically related to water supply, sanitation or public health. The persistent non-achievement of targets has resulted in a more careful approach to the setting of targets as their non-achievement is generally demoralising and leads to donor fatigue .

The Global Water Supply and Sanitation Assessment 2000 Report concludes that the recently set VISION 21 targets will not be met under the current pace of delivery without 'dramatic' changes.

Underlying issues

1. Poverty

The single most influential factor related to the sustainable provision of basic water and sanitation services is that of poverty. The lack of availability of basic services is a primary measure of poverty and poverty is the primary obstacle in the provision of basic services. Poverty affects basic water supply and sanitation in a number of ways, ultimately being so all-pervasive that it overwhelms the application of even the very best practice incorporating all the lessons learned. It is therefore important to understand the full significance of poverty.

Poverty is not confined to the circumstances of individuals and families alone but extends to the institutions which are responsible for ensuring that services are provided, at all levels. (The characteristics of institutional and individual poverty are listed in the Box below.)

Seeking to provide basic water supply and sanitation in the context of poverty requires understanding of the following factors:-

1) It is not possible to assume that services in one sector can remain functional whilst surrounded by the failure of other sectors - all sectors influence each other (health, basic services, education, transport etc.) Therefore, it must be appreciated that water supply and sanitation coverage targets for the future should also address poverty eradication.

2) Current research indicates that there is a threshold level of disposable per capita income below which formal services are not self-sustaining on a cost-recovery basis. [Ref. *World Bank - reference to be confirmed*] Public subsidisation of services in such instances generally prove to be inadequate, inefficient and unsustainable.

3) Service levels and technologies need to be developed incrementally in order to match the economic circumstances of those served.

4) In isolated situations, given adequate local leadership and commitment, some communities are able to rise above the constraints of poverty and provide viable services. Health gains can be enormous through the use of simple measures such as water storage, in-house water disinfection, better hygiene.

5) The harsh realities of poverty should not lead to the despondent notion that all efforts are in vain until poverty is eradicated - the provision of services forms part of poverty eradication.

Factors which constrain the water supply and sanitation sector

- Insufficient financial resources
- Inadequate institutional arrangements
- Inadequate human resources
- Lack of sector coordination
- Lack of political commitment
- Insufficient community involvement
- Inadequate operation and maintenance
- Poor hygiene education
- Poor water quality
- Insufficient information and communication

Characteristics of institutional and individual poverty

Institutional poverty has the following characteristics:-

- Public institutions are not able, because of the poverty of individuals and the corporate private environment, to raise funds from taxes and revenues.
- Public sector conditions of service are therefore very poor with extremely low salaries and inadequate working conditions,
- Public spending on basic necessities such as education and health care are very low,
- It is difficult to attract and keep good calibre public servants and capacity building programs are often means to leave public service for more attractive opportunities,
- The capacity and experience of officials is consequently often inadequate,
- Fertile grounds are laid for corruption and graft,
- Patronage systems result in the avoidance of accountability,
- Authorities at all levels are unable to provide the institutional framework necessary for sustainability,
- Authorities are unable to regulate the sector adequately which undermines the engagement of the private sector.

Individual poverty is characterised by:-

- Very low levels of formal employment, particularly in rural areas and poor urban fringes.
- Access to basic services is very difficult and even minimal costs for basic services represent a large proportion of disposable income.
- For the vast numbers of people surviving below the poverty line each day requires enormous skill and creativity in order to survive.
- Disease and poor health are constant realities.
- Education, if available, is of a very low standard and literacy levels are very low.

2. Political focus

The provision of basic services is a "people" affair. At this stage in the 21st Century there is little that cannot be achieved technically. Providing services requires the interaction of many people in all spheres of life. Such interaction is governed by politics - the politics of the allocation of resources, the establishment of priorities, the interaction between institutions and the engagement of those most directly effected.

Because of the history of the sector and its perceived technical nature, those working in the water supply and sanitation sector have not been adept and skilled in the language and techniques necessary to manage the politics of service provision. This has begun to be recognised during the 1990s with the identification of the need for political will and commitment but, having identified the need, the sector has generally been unable to effectively generate the required will and commitment. The need for effective political engagement is increasingly being recognised however, as can be seen in the recent adoption by the Water Supply and Sanitation Collaborative Council of advocacy as one of its emerging primary areas of activity.

It is politically naïve to attempt to avoid the 'politicisation' of service provision - what is important is to raise the political profile of the issue and to increase the pressure for politicians to be accountable and for good governance, and to achieve this using all the tools and practices available in the politicians' and activists' toolboxes.

3. Human rights

Whilst politics is the process of ensuring the prioritisation and allocation of resources, legislation creates legal obligation and leverage. At present basic water supply and sanitation do not enjoy the status of explicit statutory rights either in the international community nor at national level in all but a handful of countries. However it is argued (*The Human Right to Water, Peter Gleick, July 1999*) that there is sufficient implicit content in existing conventions and international agreements to amount to a recognisable right of all to a basic level of service. Implicit rights, however, are not sufficient to create the obligations required to adequately address the issue and to highlight the entirely unacceptable current global coverage situation where billions of people remain unserved resulting in greater human suffering and death than the violation of any other explicit human right.

"All peoples, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantities and of a quality equal to their basic needs".

(Action Plan, United Nations Water Conference, Mar del Plata, 1977)

The amount of human energy, foresight, leadership and political astuteness required to bring the issue of basic services as an explicit human right to centre stage of the international community and to have such a right incorporated into domestic legislation will be enormous. Some would argue that such energy and resources would be better employed in the business of actually providing services to the poor but both are urgently needed. Having the right to basic services recognised as a human right will not in itself provide a single drop of water but it establishes obligation and contributes to political pressure. Such a quest faces many hurdles, not least of which is a sense of global and national fatigue in the face of decades of activity with only very slow progress.

"To emphasize the human right of access to drinking water does more than emphasize its importance. It grounds the priority on the bedrock of social and economic rights, it emphasizes the obligations of states parties to ensure access, and it identifies the obligations of states parties to provide support internationally as well as nationally"

(Jolly, 1998).

4. Population

With population growth, demand for the world's finite supply of fresh water is rising, putting strains even on the industrialized countries. Global population projections suggest that the world population of over 6 billion people in 2000 will increase 20% to over 7 billion by 2015, and to 7.8 billion by 2025, a 30% rise. Enormous strains will be put on existing services, and substantial increases in the provision of water and sanitation will be needed to meet the needs of the ever-

growing population. As populations grow and demands for water and other services expand, pollution levels will rise, which will then reduce the availability of water for human consumption.

Current initiatives

There are a number of significant current activities in the international arena which are contributing to the goals of universal basic services coverage.

Poverty reduction strategies

The current emphasis on poverty reduction which has been widely adopted by many international and bilateral development agencies, resulting in the formulation and adoption of broad, multi-sectoral country level poverty reduction strategies by many countries. It is vitally important that the issues of basic water and sanitation services be highlighted in such strategies, with specific attention being given to the different needs of the rural and urban poor.

Debt relief

Debt relief programs have released much needed funds for redirection into the provision of a range of basic health, education and infrastructure services in many of the least developed countries of the world in recent years. In some instances this has produced a hitherto unfamiliar pressure to spend funds rapidly within national fiscal time-frames without the necessary technical and administrative capacity. This often leads to a relaxation of hard learned lessons such as the critical importance of ensuring stakeholder participation. The need to fast-track expenditure also increases the rationale for the engagement of the private sector which brings with it greater capacity. It is of vital importance that extra available capital from factors such as debt relief is used to maximum benefit in the development of sustainable basic services.

Vision 21

Vision 21, a unique initiative to address the needs of the unserved populations of the world compiled and published by the Water Supply and Sanitation Collaborative Council in March 2000, provides the principle current framework for action in the sector. Compiled out of a rigorous participatory process involving institutions, communities and individual experts from around the Globe, Vision 21 identifies four determining components and eleven core points.

Vision 21

"A clean and healthy world: A world in which every person has safe and adequate water and sanitation and lives in a hygienic environment."

Four components of the Vision are:

- **Building on people's energy and creativity at all levels**, requiring empowerment and building the capacity of people in households and communities to take action, and applying technologies that respond to actual needs.
- **Holistic approach**, acknowledging hygiene, water and sanitation as a human right, and relating it to human development, the elimination of poverty, environmental sustainability and the integrated management of water resources.
- **Committed and compassionate leadership and good governance**, changing long-accustomed roles, leading to new responsibilities of authorities and institutions to support households and communities in the management of their hygiene, water and sanitation, and in being accountable to users as clients.
- **Synergy among all partners**, encouraging shared commitment among users, politicians and professionals; requiring professionals within the water and sanitation sector to combine technical expertise with an ability to work with users and politicians and with the sectors of health, education, environment, community development and food.

The targets set by Vision 21 are:

By 2015

- universal public awareness of hygiene
- percentage of people who lack adequate sanitation halved (target endorsed by the Second World Water Forum, The Hague, March 2000)
- percentage of people who lack safe water halved (endorsed in the United Nations Millennium Declaration)
- 80% of primary school children educated about hygiene
- all schools equipped with facilities for sanitation and hand washing
- diarrhoeal disease incidence reduced by 50%

By 2025

- good hygiene practices universally applied
- adequate sanitation for everyone
- safe water for everyone
- all primary school children educated about hygiene,
- diarrhoeal disease incidence reduced by 80%.

Key factors for the future

The key factors which will determine the development of the water supply and sector include:

Integration

Integration is needed in two main forms:

- 1) The integration of the sector into broad poverty reduction strategies including the development of better understanding of the real relationship between poverty and sustainable service delivery and the role of basic services as components of poverty reduction strategies.
- 2) Integration of sectors in the common assault on poverty, in particular greater integration between public health, basic water supply and sanitation delivery, and hygiene promotion.

Continued rigorous application of best practice

It is important that all of the valuable lessons learned over the past 30 years in the sector at great cost are continued to be practised. Disproportionate emphasis placed on some factors to the exclusion of others create false dichotomies which hamper integrated development, for example viewing options as "either-or" alternatives such as private sector engagement versus community participation - rather than "both-and" alternatives such as private sector engagement combined with community participation, water quantity and water quality. If the past 30 years has taught us anything it is that sustainable basic service delivery is complex and extremely difficult to achieve - the needs of the poor dictate that we do not have the luxury of having to learn lessons twice.

Political engagement and advocacy

It is critical to recognise the political nature and backdrop to all activity related to the provision of basic water supply and sanitation - if the targets are to be achieved, 280 000 people will need to be provided with improved water services per day and 384 000 with safe sanitation for the next 15 years. For this to be achieved we will need to develop and employ every possible advocacy and political tool at our disposal. The sector needs to be fundamentally politicised - not in a partisan way for the benefit of officials and politicians, but through the expression of the needs of the people, especially the poor.

Private sector

Much expectation has been created with regards to the potential of the private sector and private investment to meet the backlog in basic water supply and sanitation. Some of this has been generated more from a perspective of economic dogma (and equally resisted on the same basis but from opposite perspectives). Whilst it is clear that alternatives to traditional public sector provision need to be found, successful, sustainable and equitable engagement of the private sector in services provision remains elusive, producing a mixture of partial successes and partial failures. Further lessons need to be learned to fully understand the criteria for success under the myriad complexities of local situations.

Human rights

International determination and acknowledgement that basic water and sanitation constitute fundamental human rights need to be specifically made. In order to achieve the targets, every leverage needs to be brought to bare. Inferred and derived rights are now insufficient, explicit rights are needed.

Monitoring

There is little to be gained by setting global targets if the progress of the sector is not monitored. Monitoring of the sector is important for a number of reasons. Presenting reliable, verifiable figures increases political accountability and enables advocacy to be targeted responsibly and to greatest effect to improve the equity with which services are provided. It also assists governments and external support agencies to identify problem areas, measure the effectiveness of public/private partnerships and apply corrective measures to policy, planning and implementation, thus increasing the efficiency with which scarce resources are deployed.

Effective monitoring procedures and strategies are difficult to implement, however. They require both political will and resources. Often in over-stretched and under-resourced situations where there are large backlogs of unserved consumers, monitoring is considered a luxury and not afforded adequate priority.

During the 1990s improved methods and approaches to data collection, analysis and access has led to more effective monitoring. There has been a rise in the awareness of communities concerning their rights to information and the need for official transparency. There has been an increase in the people and groups involved in data collection and new methods of participatory appraisal and qualitative information collection have been developed.

Conclusion

One of the clearest indications of a shift in approach to the problems which face the many hundreds of millions of people who do not have access to acceptable levels of water supply and sanitation is the approach of the VISION 21 process. In the concluding remarks of the VISION 21 document, the process is described as a 'movement'. The terminology is that of the mobilisation of people at all levels, of the engagement of the *grass-roots* and of the development of a 'Framework of Action' which stresses the need for each region, country and area to find the most appropriate solutions and methods of meeting the targets. The political processes and the political support required to ensure that the targets are achieved are beginning to be recognised, together with the fact that they cannot be achieved through activities within the water supply and sanitation sectors only.

The Global Water Supply and Sanitation Assessment 2000 Report identifies four major challenges facing the water supply and sanitation sector in the years to come if the targets are to be reached:

- Keeping pace with a net population growth of more than a billion people over the next 15 years.
- Closing the coverage and service gap, with emphasis on sanitation which lags considerably behind water supply.
- Ensuring sustainability of existing and new services.
- Improving the quality of services.

The particular points of challenge will be in urban areas and in the provision of services in Asia where the numbers of unserved people exceeds that of Africa, Latin America and the Caribbean combined. The report concludes that it will not be possible to meet the VISION 21 targets (which imply 292 000 new water services and 397 000 new sanitation services per day) under the current rates of services provision and that 'dramatic' changes are needed, primarily at an institutional and social level underpinned by political commitment.

Concluding remarks

Over the past decades a great deal has been learned and significant headway has been made in providing basic water and sanitation services to the poor of the world. Currently delivery rates at a global level are staying slightly ahead of population growth rates. As we face the prospect of mega-city growth in developing countries the challenge increases. Basing the quest for universal coverage within broad struggle against poverty provides the incentives to raise the issue

to new strategic political levels and to integrate our efforts in the sector with those of related sectors. Vision 21 need not be an elusive dream but it will require extraordinary effort and commitment from everyone from the remotest urban ghetto and rural village to leaders of nations and the global community.

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