

VISION 21:
**A SHARED VISION FOR HYGIENE, SANITATION AND
WATER SUPPLY**

and

A FRAMEWORK FOR MOBILISATION OF ACTION

Also forming the

“WATER FOR PEOPLE”

component of the World Water Vision

20 December 1999

This Vision is brought out by the Water Supply and Sanitation Collaborative Council (WSSCC) on the basis of consultations with people in communities, NGOs, professional organisations and governments around the world.



VISION 21: ITS ORIGIN AND PURPOSE

Over the past decades it has become evident that a crisis of immeasurable misery is with a major part of humankind. A series of consultations during the 1990's made clear that billions of people of the world will never achieve access to hygiene, sanitation and water, unless unparalleled action is taken. In 1994, government ministers from 40 countries, meeting in Noordwijk, recognised that "business as usual" was no longer adequate. Participants at the November 1997 meeting of the Water Supply and Sanitation Collaborative Council in Manila decided to push harder towards resolving the unmet needs of billions of their fellow citizens.

VISION 21 is the result. It draws on accumulated experience of the water and sanitation sector, particularly during the International Drinking Water Supply and Sanitation Decade (1981-1990), and the consensus reached over these years. In the course of the Vision work, community groups and individual women and men around the world have provided major contributions to this collective wisdom.

VISION 21 is a practical picture of the future we seek to create. It aims to inspire women and men to overcome obstacles and achieve fundamental changes. Its message is for everybody, particularly for the leaders and professionals who have the power and knowledge to help people to turn visions into reality. It also aims to inspire those still without water supply, sanitation and hygiene services, to initiate action themselves and call on their leaders to bring these services about.

Its participatory process makes VISION 21 special. It is the product of many consultations, since 1998, among over 3000 women and men at local, district, national, regional and global levels, sharing their aspirations as well as strategies for practical action toward universal access to hygiene, water supply and sanitation. VISION 21 is not a document designed to sit on people's bookshelves. It is the start of a movement. Activists can apply its strategies to suit specific needs and priorities.

VISION 21 recognises that if water, sanitation and hygiene for all are to be achieved, people's roles must change. The main activists will now be individuals and groups in households and communities with new responsibilities for their own water, sanitation and hygiene services, as part of a collective strategy. Public authorities will need to support them, and carry out the work that households and communities cannot manage for themselves. Water sector professionals must now combine technical skills with an ability to communicate with others. All these groups working together can achieve this Vision.

VISION 21 stands in its own right, as an agenda for all those directly involved in resolving the urgent needs in hygiene, sanitation and water supply. It also represents the "Water for People" component in the overall World Water Vision, compiled by the World Water Council, for presentation to the Second World Water Forum at The Hague in March 2000.

EXECUTIVE SUMMARY

VISION 21 is an initiative to put an end to a global crisis. Despite enormous achievement over the past two decades, an estimated one billion of the earth's citizens still lack safe drinking water while almost three billion have no adequate sanitation. More than two million children die each year from water-related diseases. These factors compound the suffering of more than a quarter of the developing world's people who are denied a healthy environment for living. VISION 21, brought out by partners in the Water Supply & Sanitation Collaborative Council, offers a practical picture of a future in which this shameful scandal is brought to an end.

VISION 21 demands collaborative action by empowered and capacitated people in households, communities and authorities. The participative ethos is at the core of the VISION 21 process, underlining the role of civil society in achieving its purpose. VISION 21 demands fresh attitudes and commitments, reflected in new policies and activities at every level of society and governance.

VISION 21 is directed to achieving a world by 2025 in which each person knows the importance of hygiene, and enjoys safe and adequate water and sanitation. The futuristic scenario describing a better world explains how it could be achieved. "Following the turn of the 20th century, governments and civil societies accepted access to water and sanitation as basic human rights, and linked water, sanitation and hygiene needs with broader development goals and poverty reduction, using them as an entry point for development work. The real breakthrough came when all agencies recognized that the most effective action came from the energy of people themselves. Quality leadership and democratic governance provided the environment within which 20th century visions become 21st century realities".

With this Vision for 2025 in mind, the essence of VISION 21 is to put people's initiative and capacity for self-reliance at the centre of planning and action. The foundation is recognition of water and sanitation as basic human rights, and of hygiene as a prerequisite. Together they form a major component in poverty reduction. Such recognition can lead to systems that encourage genuine participation by empowered men and women, resulting in the acceptance and practice of hygiene, coupled with water and sanitation at the household level. These factors can improve living conditions for all, and most particularly for children and women. They can contribute significantly to sustainable and self-reliant patterns of human development and wellbeing.

"Governments do not solve problems, people do", recalls VISION 21. Its approach to people-centred development takes the household as the prime catalyst for change, the first level in planning and management of environmental services. Change demanded and achieved at the household or neighbourhood level, leads on to ripples of cooperation and action involving communities, local authorities and then beyond, to actions required of district, state, national and global authorities.

Committed and compassionate leadership and institutional reform are seen as essential motivators of collaboration and participation for change. Within this, gender equality is needed, not only for social justice but also as indispensable to better water management and to the understanding, demand and use of sanitation and hygiene practices. Population growth and its particular pressures on the urban challenge also underline the need for decentralised approaches and new partnerships, including those that involve non-government and private initiatives.

Achieving VISION 21 requires actions on each of these issues through building new attitudes and commitments. Social mobilisation strategies are key, with the emphasis on demand-led efforts which can release and direct people's capacities for action. Authorities should be encouraged to adopt new roles and responsibilities within a spirit of decentralisation. Equity in the distribution of water resources, accommodating the special needs of women and children, is a central factor. Systems of financing and cost recovery must protect the poor while simultaneously encouraging private initiative. Organisational structures should be examined in the context of a household-centred approach. Suitable legislative and institutional arrangements to provide an enabling environment for rapid change include new systems of taxes and tariffs, regulatory frameworks that can encourage both equity and enterprise, and greater autonomy and accountability among service providers. Shared water resources management is beginning to become a must, whereas other supporting actions include improving technologies, and operation and maintenance, as well as meeting special situations of disasters, emergencies and conflicts. VISION 21 is of equal value to developing and industrialised countries, although the latter have their own special areas of concern.

Mobilising resources for achieving VISION 21 places emphasis on capacity building that can make peoples' energies and creativity the most important asset. The report estimates that when the principles of VISION 21 are applied, financial resources in the order of US \$9 billion, for the development of basic services will be required each year. That this money is affordable and available is a major message of VISION 21. It underlines the opportunities offered by debt relief. It recalls the 20/20 recommendation of the 1995 World Summit for Social Development that developing countries allocate 20% of their public expenditure to basic social services while donor countries allocate 20% of their annual aid budgets to the support of the same sectors.

VISION 21 argues that although past goals may have remained unfulfilled, setting goals and targets is essential to managing a process of change. It introduces a 'Basic Water, Sanitation and Hygiene Requirement' that depends on the prevailing conditions, but that includes a minimum of 20 litres of water per day for persons who understand their personal hygiene needs and use a sanitary latrine. VISION 21 underlines the importance of hygiene if basic water and sanitation services are to actually achieve better health. It suggests that each country establishes the minimum standards of service by which it will measure progress in achieving the Vision. Sample targets for achievement by 2015 and 2025 can be adopted by each community, city or country to meet its own situation.

VISION 21 concludes with the introduction of a Framework for Mobilisation of Action. This places community and country action at the centre – to prepare their own Vision and develop an action programme to achieve it. The Framework aims to assist people at community, country, regional and global levels to identify areas for action, to enlist the commitment of national governments and their partners to take up the challenge, to mobilise the global community to support the development of country Visions and their subsequent achievement, and to provide supporting tools. As the VISION 21 team sustains its contacts with countries in which the Vision process is on-going, the Collaborative Council will prepare an international advocacy plan for action through its members in more than 140 countries. They will together help generate the necessary human, technological and financial resources and appeal to the inescapable international responsibility and to solidarity among all people. The suffering that has impelled the VISION 21 process must end!

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A VISION OF THE WORLD IN THE YEAR 2025

It is now the year 2025. Almost every woman and man, girl and boy in the cities, towns and villages of the world knows the importance of hygiene and enjoys safe and adequate water and sanitation. People at local level work closely with governments and non-governmental organisations. Together they manage water and sanitation systems that meet everybody's basic needs sustainably, without degrading the environment. People contribute to these services according to the level of service they want and are willing to pay for. Everywhere in the world, people live in clean and healthy environments. Communities and governments benefit in terms of economic development as well as by improved health.

Many of the water-related diseases that were rampant at the end of the 20th century have been conquered. Revitalised international efforts to meet people's basic water and sanitation requirements have been combined with effective promotion of hygiene practices. Improved primary health care and pollution control have greatly reduced both the prevalence and severity of many diseases. Scientists around the world continue to identify links between cancers and chemical contamination of water, together with new methods for preventing and removing such contamination.

Water services are planned on the basis of sustainability. Good management, transparency and accountability to all are standard. Inexpensive water-efficient equipment is widely available. Rainwater harvesting is applied broadly. Municipal water supply is supplemented by extensive use of reclaimed urban wastewater for non-potable uses (and even for potable uses in seriously water-short urban areas). In some dry coastal places, desalination usefully augments the water supply. Many cities and towns use low- or no-water sanitation systems, for which communities and local authorities manage the collection and composting services. In both water and sanitation services, no need is seen for expensive and controversial new projects.

How has this happened? Following new thinking started during the Drinking Water Supply and Sanitation Decade in the 1980s, real improvements began in the late 1990s. Programmes were designed to address the appalling water, sanitation and hygiene situation of billions of urban and rural people, and to help manage the threat of water scarcity. Governments recognised water and sanitation as basic human rights while civil society put pressure on public authorities to act accordingly. At the first major water meetings of the 21st century, governments, international aid agencies, private companies, educational establishments and non-governmental organisations accepted this joint approach toward meeting the goal of safe and adequate water, sanitation and hygiene.

Progress accelerated when all the agencies accepted that they could only achieve that goal by committing themselves to sustained and consistent policies and actions. These included linking water, sanitation and hygiene needs with broader human development and environmental goals, and using water as an entry point for other development work. The real breakthrough came when concerned agencies all recognised that the most effective action came from the energy of people themselves. At that stage both men and women played central roles at all levels. Good governance enabled the mobilisation of people by strong leadership, and supported by both public and private institutions, working together in many different ways. This collaboration led to better health through quantum leaps in equitable water distribution, sanitation access and use, and hygiene practices. Improved basic water and sanitation reduced the cost of health care, increased people's working productivity, and freed women's and children's time for educational, commercial and community activities. These benefits far outweighed the costs of the improvements themselves.

1. VISION 21

1.1 The Shared Vision

**A CLEAN AND HEALTHY WORLD:
A WORLD IN WHICH EVERY PERSON HAS SAFE AND ADEQUATE WATER AND
SANITATION AND LIVES IN A HYGIENIC ENVIRONMENT**

Entering the 21st century, the Earth is the home for six billion people. Many of those live in wealth. But one billion people lack safe drinking water and almost three billion people (half of the world's community) lack adequate sanitation. This situation is humiliating, morally wrong and oppressive.

Unhygienic conditions and the lack of sanitation and water services cause more than two million children to die each year from water-related diseases. Over a quarter of the developing world's people live in poverty, of which the lack of a healthy living environment is a major component. Poverty also reigns in many sections of the new independent states and the industrialised world. There too, unhygienic conditions often prevail. The global community has made advances in many fields but it has failed to ensure these most basic needs of deprived people.

In order to change these conditions, a Vision is offered of a clean and healthy world in which every person has safe and adequate water and sanitation, and lives in a hygienic environment. This Vision places priority on sections of society, both urban and rural, where these basic provisions are lacking. Everywhere else actions are needed to safeguard existing services, on which this Vision places great value. Leaders and decision-makers all over the world are urged to commit themselves to achieve this Vision. It can be done. The technology and money can be available, if a collective will is generated.

The essence of VISION 21

The four decisive components, which determine the VISION 21 approach, 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 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 health, education, environment, community development and food sectors.

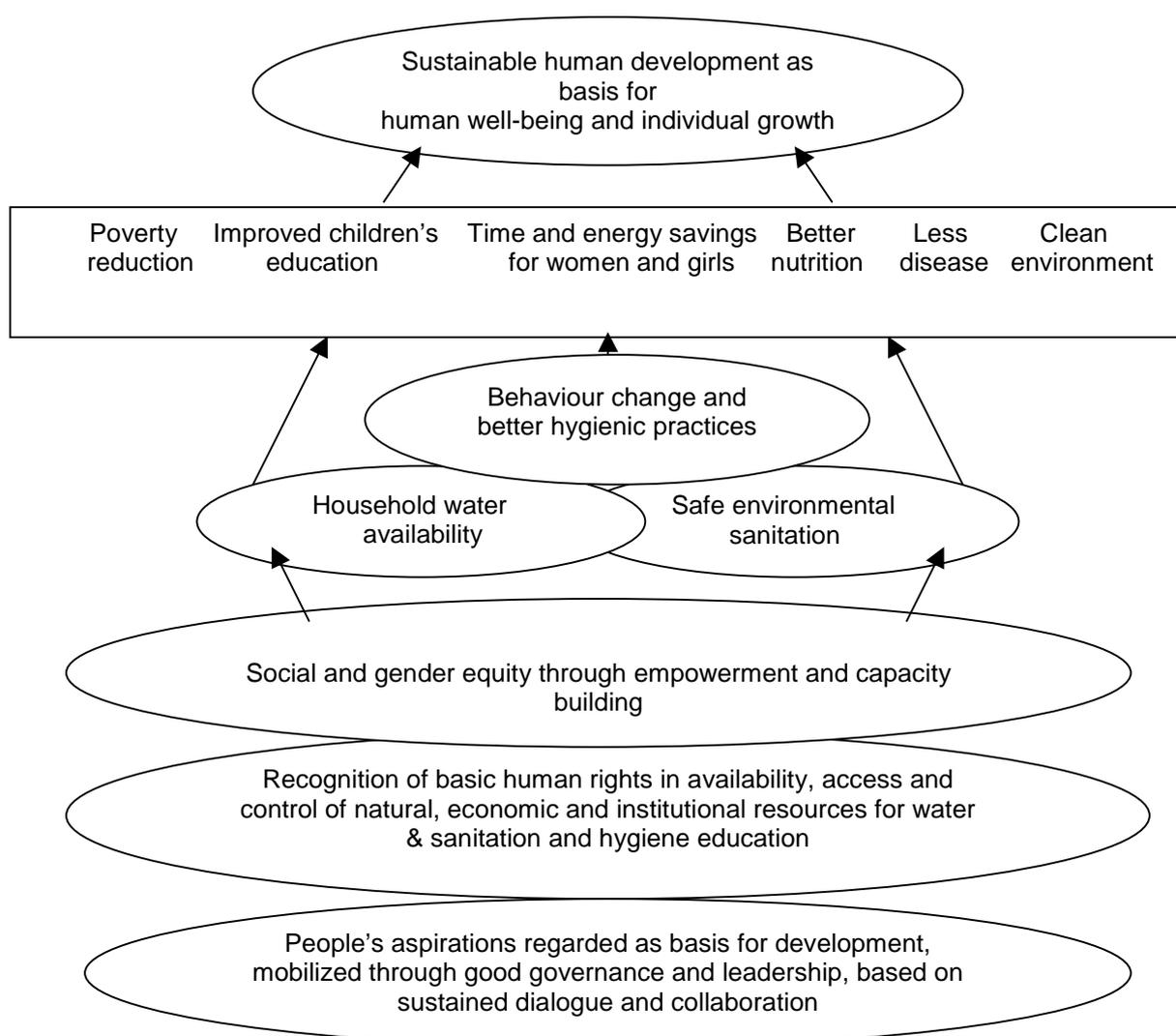
This document is the start of a collective movement forward toward making the world a better place. With the active commitment of people in urban and rural communities, their leaders, and sector professionals, water, sanitation and hygiene will be fundamental building blocks for all human development and for the elimination of poverty.

1.2 The Conceptual Framework

The following diagram summarises the reasoning behind VISION 21. It is based on the premise that people have the aspirations and energies to fulfil the human right of a clean and healthy world, with access to hygienic conditions, sanitation and water for everyone. If these energies are harnessed, and if this right is taken seriously and strong measures taken to implement it, a clean and healthy world will be within everyone's reach.

Capacity building and empowerment need to go hand in hand to facilitate new roles and responsibilities for all partners, as well as for social and gender equity. Empowerment particularly is both an objective and a prime means for achieving VISION 21 goals.

Good governance will play a major role in the pursuit of this conceptual framework. Meeting the expressed demand of people for better services is closely linked to the need for democratisation and decentralisation, the advancement of which is enhanced by empowerment and capacity building. This can lead to greater opportunity and responsibility of people at local levels, and to increased management of their own resources, resulting in sustainable human development. In turn this will support individual growth and human well being in harmony between mankind and earth.



2. THE CORE POINTS OF VISION 21

In many places in the world the call for human well being, supported by democratic processes is on the increase. VISION 21 is a response to this call. The core points summarise the major changes and challenges implied in the Vision. They describe the culture inherent in VISION 21, a culture mobilised by awareness and commitment to change.

The Core Points

- **People come first**
- **A human right to basic services**
- **Entry-point to human development and poverty elimination**
- **Committed and compassionate leadership**
- **Synergy of action**
- **Hygiene and sanitation as a revolutionary priority**
- **Gender equity for lasting change**
- **The challenge of the urban poor**
- **Institutions as change agents**
- **Mobilisation for affordable services**
- **Shared water resources management**

2.1 People come first

The fundamental premise in this Vision is the essential need to have people's initiative and their management of their own quality of life at the centre of planning and action. This requires a reversal in prevalent directions of thinking and action. It requires starting at the level of households or neighbourhoods, working up from there to community and higher levels.

People's Participation

People's participation is becoming the central issue of our time. The democratic transition in many developing countries, the collapse of many socialist regimes, and the worldwide emergence of people's organisations - these are all part of a historic change, not just isolated events.

Source: Human Development Report 1993

People have their own initiative and resources. These can and must be harnessed, in the framework of democratic processes, to ensure that development matches people's own needs and commitment. Governments and institutions need to respond to these. Such a collective strategy is essential for sustainability.

2.2 A human right to basic services

Hygienic conditions and adequate access to safe water and sanitation services are recognised as fundamental human rights. They are implied in the founding charter of the United Nations, and supported by major human rights treaties, conventions, covenants and official practice. A formal designation of these human rights empowers citizens to demand these services, and obliges governments that have signed the conventions to promote and facilitate that right - both in their own countries and as donors to others.

Emphasis on the duty of governments and societies to respect and implement this human right as well as the responsibility which must accompany rights, can give high priority to access to services.

Human Poverty is a Denial of Human Rights

Human poverty constitutes a denial of fundamental human rights. To promote social progress and raise the standard of living within the wider concept of freedom, international human rights law – as enshrined in the UN Charter, the Universal Declaration of Human Rights and other treaties and declarations – recognizes economic and social rights, with the aim of attacking poverty and its consequences. Among these rights are an adequate standard of living, food, housing, education, health, work, social security and a share in the benefits of social progress. International law recognizes that many countries do not have the resources to achieve some of these rights immediately; nevertheless, states are obliged to take steps, to the extent that their resources allow, to progressively realizing economic, social and cultural rights. International law also obliges the international community to assist poorer countries in addressing their resource problems, and commitments have been made at UN conferences to increase development assistance, focusing on human development priorities and the eradication of poverty. All countries except Somalia and the United States have ratified the Convention on the Rights of the Child. Article 24 of that Convention enjoins signatories to take appropriate measures for the provision of clean drinking water, hygiene and environmental sanitation. Well over two-thirds of all countries have ratified other conventions related to poverty and human rights.

Ratification status of major human rights conventions, 1 March 1997

Convention	Countries that have ratified or acceded	Countries that have not ratified or acceded
Economic, social and cultural rights, 1996	135	57
Civil and political rights, 1966	136	56
Elimination of discrimination against women, 1979	153	39
Rights of the child, 1989	190	2

Source: United Nations Centre for Human Rights 1997
Human Development Report, 1997

2.3 Entry-point to human development and poverty elimination

There is an immensely powerful link between human development and water, sanitation and hygiene. Practice shows that these often form an entry-point to human development and poverty elimination. Many communities recognise this by giving them top priority in their own visions of their future. Experience has also shown that activities to improve water, sanitation and hygiene can lead to other developments and can serve as an entry-point to better governance.

Poverty is a severe blockage to human development. By any definition, water, sanitation and hygiene contribute significantly to eliminating poverty. Poor people themselves consistently place lack of water as one of their main poverty indicators.

In view of their huge mutual effects, it is essential that water, sanitation and hygiene are included in human development and poverty elimination programmes.

Water, Sanitation and Hygiene and Human Development

Improved water, sanitation and hygiene help strengthening human capabilities and broadening human choices by:

- reducing the health burden of waterborne and water-washed diseases
- reducing the time taken off work (or school) by ill people and their carers
- improving nutrition due to reduced losses of nutrients through diarrhoea
- reducing the time and effort spent, normally by women and children, to carry water from distant sources
- making time for other activities such as children's school attendance and adults' income generation
- improving people's self-worth and social status
- improving privacy and dignity, especially for women

Source: IIED

2.4 Committed and compassionate leadership

The realisation of this Vision implies committed and compassionate leadership. This is required at all levels, from the household and the community to the global level.

Leadership signifies that there is not only a goal to be achieved, but that there is also a constituency to be empowered and inspired. Leadership has to ensure that the principle of putting people's initiative at the centre of planning and action is supported by an enabling environment and backed by effective policies, legislation and institutional arrangements,

Good governance, based on institutions and systems in which citizens participate as equals, is the context within which effective leadership can flourish. One of its major tasks is to deal adequately with the menace of corruption.

2.5 Synergy of action

Achieving hygiene, sanitation and water for all people requires the efforts of a wide range of individuals, institutions and organisations. The pace and complexity of change is such that isolated actions cannot suffice.

A major contributing factor to the existing backlog is the lack of synergy of action between different stakeholders and actors. Elimination of this backlog requires a principle intention of working in unison towards a common goal, making the whole of the effort greater than the sum of its parts. This is also needed to place water supply, sanitation and hygiene within the context of human development and poverty reduction.

Synergy of action will ensure that freshwater ecosystems are maintained in such a way as to continue providing people's basic water requirements, which must take priority over all other water uses. In return, efficient management of domestic water services, and the elimination of human and industrial waste as a major pollutant of natural systems, must help overall water resource management. As population increase will be a major contributor to a water crisis in the next century, such measures are urgent.

Collaboration is the way to greater synergy. This involves more than just communication. It involves partnerships and mutual trust and understanding. The focus is on the goal, putting aside rivalries and conflicts between agencies and departments. Collaboration must be seen as a principle that needs conscious adoption, rather than merely as a way of working. This will optimise resources and actions, and form a basis for mutual support, avoiding duplication, gaps and conflict.

2.6 Hygiene and sanitation as a revolutionary priority

Experience has shown that clean water alone leads only to minor health improvements. The essential factor is sound hygiene behaviour i.e. personal hygiene recognised as a core issue in its own right, with adequate sanitation and clean water as supporting components. While each of the three components alone has some health benefit, it is their combined effect which is far greater. Hygienic behaviour is virtually impossible without a source of safe water and safe means of disposal of human and other wastes.

Data on Water-related Mortality

Water-related diseases caused an estimated 3.4 million deaths in 1998, broken down as follows:

Disease	Deaths (000)
Diarrhoeal Diseases	2,219
Malaria	1,110
Trypanosomiasis	40
Intestinal Worm Infections	17
Dengue	15
Schistosomiasis	7

The majority of these deaths were children.

Source: WHO 1999 World health Report

This is revolutionary knowledge. It means that the prime focus must be on raising hygiene awareness and promoting hygienic practices. This also means that the principal concern must be for the 3 billion people who lack adequate sanitation (in which the 1 billion who lack safe water are included). It means that those countries with good water supply and yet poor sanitation remain high priorities for action. It also recognises that water and sanitation departments and agencies have done far too little work in sanitation compared with their work in water, and that this situation must change.

Hygiene promotion is urgently needed. Many people do not understand the link between poor hygiene and sanitation and disease - nor is a healthy environment understood in these terms. Nobody has explained it to them, and in most societies sanitation and hygiene involve difficult issues of taboos and shyness.

The impact of waste elimination on human health as well as on the quality of the environment is little understood. Because water has always taken a central role in people's cultures and priorities, it is only natural that they should demand water as the first priority, not sanitation or hygiene promotion. Engineers highly qualified in water but untrained and uninterested in sanitation or hygiene often lead water sector agencies. Thus hygiene promotion and sanitation are either ignored or added on to water programmes as an afterthought. The medical profession also plays its role. It concentrates most often on cure rather than prevention, often neglecting the critical importance of hygiene and sanitation. The need for genuine transformation in these entrenched positions underlines the truly revolutionary nature of the change inherent in this Vision.

2.7 Gender equality for lasting change

There is a strong rationale for an increased focus on gender equality in relation to hygiene, sanitation and water. The first consideration is that it is an important issue of social justice to ensure that women as well as men have access to and control over resource and development interventions, which affect them. The international community has recognised these rights.

The Health Benefits of Hygiene, Sanitation and Water

India's Socio-Cultural Awakening Movement surveyed people's sanitary habits before and after implementing an integrated water, sanitation and hygiene project. Before the project, 0% of the population defaecated in a latrine, 43% by the roadside and 57% in other outdoor locations. After the project 74% defaecated in a latrine, 0% by the roadside and 26% in other outdoor locations.

These figures are impressive but sustainable behaviour change or health benefits are notoriously difficult to prove scientifically. A 1999 review by the WELL (Water and Environmental Health at London and Loughborough) Resource Centre applied strict criteria to identify only the studies that were scientifically rigorous. It found, for example:

- A project in Kikwit, Republic of Congo, carried out a randomised controlled trial of a hygiene education intervention intended to reduce diarrhoea. The children in the communities in which the intervention was carried out experienced an 11% reduction in the risk of reporting diarrhoea during the peak season, while unhygienic behaviours were reduced by 10%.
- A project promoting hand washing with soap in a village in Indonesia was surveyed before, at the end, and two years after the project. The percentage of people who washed their hands with soap after defaecating rose from 0% before the project to 92% after it, and was sustained at 52% two years later.

Other researchers have also collated the health survey results from many different water and sanitation projects with large numbers involved. Using diarrhoeal disease incidence (morbidity) as the measured indicator, the analyses show greater improvements due to the combination of hygiene, sanitation and water than due to each individually. For example, Stephen Esrey analysed data from 144 projects for USAID's Environmental Health Project and found 36% reduction in morbidity due to water and sanitation combined, with 26% reduction due to sanitation alone and 17% due to water alone.

Sources: WELL task no. 165, Esrey, Wan, Cairncross

Working Definition of Gender

Gender refers to the socially determined roles and responsibilities of women, men and children. Gender is related to how we are perceived and expected to think and act as women, men or children (girls and boys) because of the way society is organised.

Source: RWSG-East and Southern Africa

Secondly, women as well as men are important stakeholders in water, sanitation and hygiene development. Indeed, in most parts of the world women are the managers of domestic water and of family health. Therefore attention to both women and men, and to the relations between them, is essential for effective development in the sector.

Gender analysis provides a more subtle and complex picture of women's roles within the family and community. It helps to explain why

many of the more simplistic approaches to involving women in water and sanitation projects have failed. Biases persist and operate, despite all the rhetoric on the importance of women. They have a dual negative impact in maintaining (or even increasing) gender inequalities as well as inhibiting the achievement of sector goals. There is therefore a priority need for reducing and eliminating these biases because the Vision cannot be achieved if they are allowed to persist.

Equitable Involvement of Women and Men

Abundant qualitative and quantitative evidence is available showing that where women and men of the various social user groups take part in consultation, decision-making and are trained, facilities are used, management improved and hygiene behaviour patterns strengthened. In contrast, absence of consultation of female water users and managers in projects in Togo, Indonesia, Guatemala and many others, led to these women not using the facilities - not because they had not been educated, but for good reasons such as wrong location, wrong design or problems over sharing facilities.

The design of irrigation schemes in Sri Lanka was adjusted in order to make safe water available to women for domestic use. Similarly in St. Lucia, laundry facilities were added to an irrigation system to avoid women standing in the water too long and contacting schistosomiasis.

On a household rainwater harvesting project in Gujarat, India, water committees were formed in five villages. The committees comprised approximately equal numbers of women and men. Despite hostility in the community towards women's participation in project work traditionally seen as men's work, they were active in many aspects: the committees' decision-making, the construction work, seeking a loan from a local bank for the project and, in one village, resolving a conflict between two social groups that was jeopardising the success of the project. In assessing the effects of the project, women felt particularly relieved by the availability of water at home at the end of each day's agricultural work.

Sources: van Wijk, IRC, International Secretariat for Water

2.8 The challenge of the urban poor

Urbanisation, and particularly the situation of the urban poor, requires urgent attention. The world's population growth is concentrated almost entirely in the cities of developing countries, both from natural growth and from migration. In many cases this growth outnumbers the capacities of conventional service provision. The result is that many cities around the world include large sections where the urban poor have grossly inadequate water, sanitation and hygiene services.

Migration in particular, often leads to inhuman situations. Attracted by the possibility of improved standards of living, thousands of people crowd sub-urban areas. In many cases, they have no choice other than to create illegal settlements, which quickly degrade into slums. There are cases in which municipal authorities discourage or even prohibit service provision to these settlements. Clearly urgent measures are needed. City planners, in too many cities, are confronted with apparently intractable situations and decision-makers are challenged to avoid social unrest.

Future Urban Growth Figures

Over the next 25 years in developing countries, 95% of population growth will occur in urban areas. The urban population will roughly double in size, to over 4 billion people. The number of big cities with over one million people will almost triple to well over 500. By 2015, one person in five will live in a big city, compared to one person in nine now.

After 2020, all population growth in the developing world will occur in urban areas, as the rural population declines. By the middle of the next century, villages will cease to exist in many countries. Poverty will have largely been transferred to urban areas.

Source: Population Council

Urban sanitation is an even harder problem to resolve than water supply. While already too many poor people in cities lack access to sanitation facilities, the size of the problem is increasing rapidly. New approaches are needed to put a halt to this misery, its threat to public health, and the resulting environmental degradation.

Water, sanitation and hygiene are key elements for urban management and development. They are crucial for urban stability in social balance, employment, basic health, industrial development and public services. In urban areas where these services are lacking, immediate action is needed. The longer it is delayed, the larger will be the barriers to overcome.

Urban Innovation: The Orangi Pilot Project

The Orangi Pilot Project (OPP) operates in an area of Karachi, Pakistan, in which about a million people live. Since 1980, OPP has been helping the people of Orangi to construct their own latrines and local sewers, which discharge into the main Karachi sewers that run through the area. The people pay the capital costs of their infrastructure themselves, not depending on an outside agency. OPP has also carried out hygiene education and various training programmes for the people.

The results of OPP's work are impressive: in Orangi, more than 90 % of households have built their latrines, lane sewers and over 400 collector sewers. They have invested about US\$1.5 million in this work, which is less than 15% of the cost originally estimated by government agencies for a conventional sewerage system. Infant mortality has fallen from 130 per 1000 in 1984 to 37 per 1000 in 1991. In the same manner the Orangi schools, without assistance from the government or donors, have raised the literacy of residents to over 78% (compared to an estimated Karachi average of 62%).

The main components of OPP's approach are: to build on people's perceived needs, priorities and capabilities; to give priority to affordable systems and improvement of existing systems; to develop local teams of professionals, social organisers and technicians bound together by a common vision and strong ethical values; to support people in improving services rather than to impose a "project" perspective.

OPP keeps detailed accounts to help future extension or replication of its work and to ensure transparency and accountability. It collaborates with official agencies to promote new sewerage systems that divide responsibility between internal development (communities finance, build and operate the house latrines and local sewers) and external development (the government finances, builds and operates the trunk sewers and treatment plants).

Source : Arif Hasan, *Akhtar Hameed Khan and the OPP*; City Press, Karachi, 1999

2.9 Institutions as change agents

As a response to the principles of this Vision, institutional development must ensure that indeed people come first and are at the centre of decision-making. Water, sanitation and hygiene services should be managed at a level closest to the user, recovering as a minimum the full costs of operation and maintenance, and with mechanisms that ensure accountability to the consumer.

Decentralisation and democratisation are now impacting on institutional structures for services. A wide range of institutional and management options for the provision and management of water and sanitation is possible and is being used across the world. However, the most effective and efficient services come from adoption of commercial principles in management and from effective regulatory mechanisms, which ensure service standards and accountability to the consumer, and to authorities.

Implementing service contracts in Mexico.

Since October 1993, four private firms have been awarded service contracts to implement universal water metering, rehabilitate the distribution system and carry out a loss detection programme in Mexico's Federal District for a population of almost 9 million. The decision to involve the private sector was motivated by the urgent need to provide adequate water services for one of the largest cities in the world.

The Federal District Water Commission supervises the four private firms, reviews and analyses their financial statements.

A number of other public authorities continue to play an important role in the sector causing problems of duplication and overlap. In addition the four consortia have difficulties to determine their commercial efficiency in their respective areas and no incentive to pursue non-payers, as they have no ready access to complete information about which customers have paid.

Although it is too early to fully evaluate the success of the programme, important lessons have been learned. The transition to private sector management has achieved several goals. The change to metered consumption is one of the most important achievements. Substantial improvements have been made with the customer data base, metering and billing. In addition, there has been an important increase in the collection levels. The adoption of a phased approach has allowed mistakes to be corrected. Also dividing the city into zones has reduced the risk of monopoly as a contract may be revoked.

Source: Lilian Saade, IHE

The pace of institutional reform must be accelerated to accommodate these lessons so that water and sanitation institutions become a means to achieve the Vision rather than an obstacle providing unreliable, poor quality and intermittent services to only a small proportion of potential clients.

Institutional solutions may be a mixture of formal and informal, government and private, welfare and community organizations. Each has advantages in particular situations and partnerships, dealing with complex issues of the poor. As far as possible and without compromising the public good, it needs to be ensured that people in communities have the service level and management system that they want and can afford.

Relatively limited attention is usually paid to financing of human resource development. This is an essential input, without which the overall effectiveness of financial investment is at risk.

2.10 Mobilisation for affordable services

Water and sanitation services involve costs and are therefore not 'free'. Cross subsidies can be used to assist the poor and grants can assist capital development. Pricing must reflect a regulatory structure that is sensitive to concerns of equity and capacity, and also ensures viable and sustainable pricing systems that are open to public scrutiny.

Poor people often pay far more for informal, poor-quality services than the wealthy do for piped water systems with heavily subsidised tariffs. And the poor often pay again by suffering and losses experienced from preventable water-related diseases. This imbalance is economically unacceptable and morally wrong.

In view of the prevailing emphasis in our societies on economic considerations, the affordability of water, sanitation and hygiene receives much attention. There is ample experience, however, showing that affordability is far less an issue than is often assumed. First, the potential of local mobilisation of finance is released when the principles of this Vision are adopted. People have demonstrated that they are willing to pay for reliable services. This is especially so in cases where the poorest urban residents currently pay water vendors four to five times the typical price of municipally supplied water.

Secondly, if the principles of this Vision are adopted and decision making is placed close to the community, the resulting costs of water, sanitation and hygiene services can be significantly reduced. This will result in figures far lower than those assumed so far. Leveraging community resources will reduce direct costs, distribute costs among many partners, reduce costs of centrally managed systems, and discourage corruption.

Thirdly, it takes more not to provide water and sanitation services than to provide them. A major water-related disease outbreak can cost far more in medical care and lost productivity than the universal provision of safe water and sanitation. Similarly the cost of treating polluted water for consumption is significantly higher than treating unpolluted water.

The Costs of the Cholera Outbreak in Peru

A massive outbreak of cholera occurred in Peru in 1991, probably caused by contamination of seafood by untreated sewage. Within ten weeks Peru lost US\$ 1 billion due to cancelled agricultural exports and reduced tourism. This loss was more than three times as much as Peru had spent on water and sanitation during the previous ten years.

In the same year the number of cholera cases reached 320,000 with 2,900 deaths, most of which among the poor. The epidemic spread quickly to most of the Latin American and Caribbean countries and even to date, cholera is endemic in most of these countries.

Source: IIED and WHO

Equitable financing and cost recovery are essential to enable services for the unserved, and particularly the poor. Considerations of equity must be in balance with those of financial viability. Neither old dogmas about providing water and sanitation free, or new dogmas about always charging full cost pricing are adequate. Charges must be in line with the capacity of people to pay, especially the poor. Options of payment in kind or in cash need to be considered.

2.11 Shared water resources management

The fulfilment of the human right to adequate and safe water supply implies that in the context of integrated water management first priority is given to water for domestic purposes. Since tap water must be safe at all times, drinking water quality policies and monitoring are essential components of management of drinking water systems.

An important aspect of water resources management is the ensurance of a good quality of water and of the environment, so that water used for human consumption does not need complex treatment. For this reason, and to safeguard the essential roles a clean environment plays for mankind, avoidance of pollution, and application of the "polluter pays" principle to all users needs continuous emphasis. This implies the requirement of adequate sanitation measures, without which water supply sources are in risk of serious pollution. It further points at the importance of a universal hygiene awareness, since without the participation of the population, pollution control is doomed to failure.

3. ACHIEVING VISION 21.

This chapter adds background and information on the core points of Chapter 2, while suggesting general areas of action. A Framework for Mobilisation of Action (now in preparation and introduced in Chapter 5) will contribute specific approaches.

3.1 People accepting responsibility for local development

“Governments do not solve problems, people do”. This observation at the Ministerial Conference on Drinking Water & Environmental Sanitation in 1994 has been amply borne out by the collective experience of the VISION 21 process. The application of people’s own energies and local decision-making and control is essential for sustainable human development. This is the cornerstone of VISION 21.

Empowerment, achieved through self-reliance, is central in this vision. Such empowerment enables individuals and communities to understand their options for change, to choose from among them, to assume the responsibilities that these choices imply, and then act to realise as well as sustain their choices.

Facilitating the required social and political processes to make this possible is therefore a precondition to achieving water, sanitation and hygiene goals. These processes will need to create the opportunity for self-empowerment through capacity building – for which finance must be made available - and legal reform towards formalising the citizens’ place in the decision-making process. Such social development demands that the needs of the poor be accepted as the top priority. The poor (particularly women) need special awareness of their rights and responsibilities, and support in achieving those rights.

On this basis, the process of decision-making and action can start at the household level, i.e. the level at which consumers decide what level of services they want and can afford. In this process the household is the core, the first level in the planning and management of environmental services. Functions that the household cannot assume are passed on to the next circle, the neighbourhood, then to the community, the district, the province, and so on. The ripple of responsibilities passing from one circle to another illustrates the principle that only tasks beyond the capacity of one circle are handed on to the next, implying an essential commitment to decentralisation and

Two Examples of Local-level Social Development

* The WAMMA programme is a partnership between the Tanzanian Government and the international NGO WaterAid to support community-managed water, sanitation and hygiene projects. The government and NGO field staff work together to motivate and educate the communities and local leaders. Together they have overcome the legacy of the people’s distrust for previous government programmes, and have placed decision-making power firmly in the hands of the communities. The communities manage their own water and sanitation projects well.

Barnabas Pulinga is a Government water engineer who has played a major role in the programme. It has transformed his working life. “We engineers used to design water projects in our office and keep the plans there. We thought the villagers couldn’t understand such things. Now we go to the village to do the design work and even the old ladies can draw a plan of the water project using a stick in the dust. It is a big change and a better way of working.” Mr. Pulinga is deeply impressed by the capacity of villagers to develop practical solutions to their own water problems, to plan and manage schemes which meet their needs, and to undertake tasks such as village mapping, construction of domestic water points and casting of latrine slabs, all previously thought to be the job of water department specialists. “I believe that the community can work wonders for their own development through their water and sanitation projects.”

* Social development in the water sector in Zambia is promoted through the WASHE (Water, Sanitation and Hygiene Education) concept. A wide range of people from within the communities themselves and professionals in health and technical subjects work together on integrated water, sanitation and hygiene programmes. Each District has, or will soon have, a District WASHE Committee that comprises a wide range of people and makes the important decisions on water, sanitation and hygiene within that District. External support agencies’ roles are to support the Zambian professionals and community members through training and skills development, as well as to provide financial support.

Sources: Dodoma Regional Government/WaterAid Tanzania; Ministry of Water and UNICEF Zambia

participatory structures. In applying this process it should be realised that households and communities are not necessarily homogeneous units and that in practice the differences in internal interests and power structures at these levels (such as the position of women) need careful consideration.

The use of participatory approaches is essential in this process. These have been proved effective in demonstrating the principle of putting people first on the achievement of sustainable services. The necessary participatory tools are available and have been tested world-wide. Participatory approaches require:

- effective local institutions accountable to local citizens, both women and men;
- dialogue with service providers on costs, benefits and operational responsibilities;
- access to technologies appropriate to need;
- capacity building to strengthen capacities to undertake and guide self-reliant action; this capacity building is needed for all parties, including local citizens and service providers.

Individual and community initiative needs to be supported where possible, but there is also a need to progress from ad hoc arrangements to robust community-based organisations. The development of civil society and user representation must balance local government and private sector interests

In many parts in the world, women's roles in civil society and their representation in local government and private sector are minor, relative to that of men. There are a number of constraints to women's more equitable involvement. These need to be clearly identified and tackled. A gender equality perspective is critical to mobilisation of households and communities and toward assuming responsibility for development. It can ensure that women are not marginalised in these processes. Equal education for girls and boys has been shown to be important in this respect.

If a broad human development and poverty perspective is to be applied there are other groups which also risk marginalisation. Socio-cultural criteria (such as ethnic group, class, religious affiliation and age) need also to be taken into consideration.

3.2 Fulfilling the human right

The human rights perspective forms a sound platform for the development of basic services, and therefore for implementation strategies. The key action towards fulfilment of a right to water, sanitation and hygiene is that of working towards its recognition at national and international level.

In this connection the disgraceful conditions in many urban centres demand immediate and imaginative attention towards translating a concept of rights into the reality of sustainable services. Obviously the recognition of the right to services should not be understood as an unlimited right to free services.

Human Rights Statements about Water, Sanitation and Hygiene

Article 25 of the Universal Declaration of Human Rights (1948) states:

"Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing..."

Article 12 of the International Covenant on Economic, Social and Cultural Rights (1956) states:

"The States Parties to the present Covenant recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. The steps to be taken . . . to achieve the full realisation of this right shall include those necessary for... the prevention, treatment and control of epidemic, endemic, occupational and other diseases."

Article 24 of the Convention of the Rights of the Child (1989) provides that a child has the right to enjoy the highest attainable standard of health. Among the measures States are to take to secure this right are measures to: "combat disease and malnutrition . . . through, *inter alia*, . . . the provision of . . . clean drinking water as well as measures to ensure hygiene and environmental sanitation."

Source: Dr. P. Gleick

Not enough is known on how to achieve the fulfilment of these human rights and further work in this area is required. This includes awareness of new responsibilities, both of citizens and institutions of governance. Coalitions and partnerships will be essential, particularly with those experienced in human rights aspects of gender, children and the environment. A systematic educational approach on rights and responsibilities is needed.

The process of reporting to the Geneva Committee on the Implementation of various human rights conventions often prompts governments and others to do more to implement different aspects of the conventions. NGOs in particular use the reporting process to encourage practical action, to advocate and publicise issues, and sometimes to shame governments or other parties into action. This has worked for women's and children's issues and could also work for water supply and sanitation.

As population growth and the pace of development accelerate, circumstances of scarcity demand integrated management that ensures water for basic needs, reserved as an acknowledgement of a human right. A strategy of prioritising water to fulfil basic water, sanitation and hygiene requirements can achieve this if underwritten by adequate legislation. It should also be noted that people not only have a right to basic services; they also have the right to demand accountability in how that service is provided.

3.3 Linking with human development and poverty elimination

Human development is the process of strengthening human capabilities to make and expanding choices to achieve a decent standard of living. A human development approach implies that all groups in society be involved and will have the potential to influence, participate in and benefit from development actions and interventions. Human capabilities need to be strengthened to ensure that everybody knows how and why the use of facilities can improve their lives. There is a need for further work to define appropriate approaches in different situations. Education should form an essential component. In particular, it is vital to increase children's knowledge, motivation and good habits of health and self-care.

Human Right Mechanisms

One way to act on the fulfilment of the human right on water, sanitation and hygiene is to set up a regional mechanism facilitating data collection, reporting and advocacy. These activities can build upon a network of country-based organisations, mostly independent researchers, social activists and NGOs.

The process of reporting and advocacy can address four dimensions of this human right:

1. The compliance of national governments with international and national legal commitments such as the Universal Declaration of Human Rights (art.25), the International Covenant on Economic, Social and Cultural Rights (art.12) and the Convention of the Rights of Children (art.24) or their own constitutions.
2. The adoption and respect of legal and ethical commitments regarding the rights of the unserved, underserved and the consumers by all stakeholders.
3. The respect of gender equity in water and sanitation both in access to services and involvement in decision-making and management.
4. Good governance, including community participation, accountable and transparent decision-making and management of water and sanitation at all levels.

Such a process could also be adapted for use at the national and community levels.

Source: G. Regallet

Implementing, Monitoring and Reporting On Rights

It may be useful to distinguish between the principle of human rights and the processes of monitoring and reporting on progress toward their achievement. A legal obligation of governments to provide access to safe water and sanitation needs acceptance as a matter of principle. Such rights are important if the weak are to be empowered. Without clear rights, those who are more powerful, better educated and better connected have the advantage in obtaining services over those most in need. Once the principle is accepted, the exact nature of services and the conditions under which they must be provided can be translated into goals. These can reflect clear plans and commitment of resources, commensurate with a nation's capacity. Progress toward the realisation of goals can then be measured through qualitative and quantitative indicators, helping to transform goals into achievable rights. Reporting progress requires articulation of the problem and information on official programmes which respond to it. It requires understanding of laws, which relate to such rights, and information on the extent to which such laws are effectively carried out. Reporting can monitor institutional arrangements which must hold governments and others to account in meeting goals and thus fulfilling rights. Sustained campaigns will be needed toward this end. Experience shows that where programmes are not required to show their effectiveness, the original purposes of wellbeing and empowerment are often lost.

Moral and practical considerations compel humankind to end severe poverty in the shortest possible time. The Social Summit in Copenhagen in 1995, the largest summit ever held, accepted the goal of poverty eradication “as an ethical, social, political and economic imperative of humankind”. 185 countries committed themselves to setting national goals, preparing strategies and setting national target dates for achievements. Almost 80 countries have completed their action plans and a further 40 are developing them. As a support, many international agencies have made poverty elimination (or its reduction) their central goal. The Development Assistance Committee (DAC) of the OECD donor countries has focused on halving the proportion of people in poverty by 2015. It can be said therefore that poverty elimination is now a major theme for international development. The UNDP’s Human Development Report includes lack of access to safe drinking water (along with lack of access to health services and inadequate nutrition) as one of five specific components of poverty.

There are many linkages between poverty and water, sanitation and hygiene. On the personal scale, improved behaviours and services lead to improved health. This, in turn, enables the poor to work more and to earn more to support their families. On the macro scale, improved water supply and environmental sanitation attract industries and investments into a community. These factors combined improve the local economy and help alleviate poverty.

Water, sanitation and hygiene are important not only as a human right, but also as a step to national development and poverty eradication. This emphasises the critical importance of progress in this area.

It is important to note that women are amongst the poorest of the poor in many parts of the world. A focus on poverty must include a focus on gender. Because of gender differences and disparities, the causes of poverty for women and men can differ. Women and men can experience poverty in different ways. Survival strategies also often differ for women and men because of inequalities in access to and control over resources, decision-making and information. An increased focus on poverty in water, sanitation and hygiene cannot succeed if gender differences and disparities are allowed to persist.

How a Human Development Approach leads to Successful Water and Sanitation work

The Hitosa Water Supply Scheme in Oromia Region, Ethiopia, was completed in 1995 and serves 65,000 people. The local people themselves planned and constructed it, and they now operate it successfully through an elected Water Management Board that employs 74 staff, all of whom are local people trained on the Scheme. The whole approach to the Scheme’s construction and operation is based on the people’s own wishes for their development.

Abebe Negusse, Head of the Water Management Board, is personally familiar with the situation in Hitosa, having spent much of his childhood there fetching water from distant rivers. He applied to work on the Scheme instead of training as a teacher or agricultural extension worker, in order to serve his community.

Yilma Kebede, the Board’s Head of Finance, is also local. He is no dewy-eyed romantic about community management: “It runs in the same way as any other system. The difference is that decisions get taken more quickly because we are all on the spot and we are as affected as anyone else by what happens to the water supply.”

Source: Oromia Regional Government/ WaterAid Ethiopia

Poverty and Sustainability

There is a correlation between the state of a country’s economy and the availability of basic services, between poverty and lack of safe water supply and sanitation.

Establishing sustainable basic services has been hampered throughout the developing world by circumstances in which the users cannot afford to pay for them in full. However, the availability of basic services is a necessary component of the eradication of poverty.

Therefore a vicious circle needs to be broken: on the one hand the sustainability of services depends upon the eradication of poverty and the building of viable, growing economies, whilst on the other hand the provision of basic services is a requirement of poverty eradication.

The implication of this is that water and sanitation sector professionals need to ensure that they understand the social and economic factors that influence this sector. They also need to ensure that water and sanitation issues are on the poverty eradication and economic growth agendas of governments and international agencies.

The Politics of Sustainable Development

“Sustainability demands the creation of a political order in which, firstly, control of natural resources rests to the maximum extent possible with local communities who are dependent on those resources; and, secondly, decision-making within the community is as participatory, open and democratic as possible. The bedrock of sustainable development is composed of freedom and democracy.”

‘Toward a Green World’ by Anil Agarwal and Sunita Narain, Centre for Science and Environment, New Delhi, India.

3.4 Mobilising leadership at every level

The mobilisation of committed and compassionate leadership is needed at all levels: from village communities to teachers of youth groups and at schools, to rural local governments, to urban civic associations, to institutions' directors and staffs, to ministers and heads of state. Democratic processes can help identify and inspire leaders who have a passion for their cause, and a deep desire to create a better world. They must have compassion for those marginalised within their societies and be determined to improve their lot. Their role must be to motivate and inspire people to fulfil their own aspirations, and stand for the interests of the people they represent.

India's Technology Mission: Mobilising Society for Change

In 1986, India's Prime Minister Rajiv Gandhi introduced a National Technology Mission for Rural Drinking Water Supply and Sanitation. The goal was to cover 165,000 'problem villages' within a period of five years, and to do so through mobilising every section of society. Decentralisation, access to technologies of choice, cutting red-tape and involving women as leaders and the local knowledge of NGOs were among the features of the Mission culture. Regions with particular challenges (such as fluoride, salinity ingress, guinea-worm infestation and groundwater depletion) were identified as the focus of Mini-Missions. Communication models were developed with local and professional expertise. Policies and programmes were drastically modified on the basis of research into prevailing levels of knowledge, attitude and practice. Integrated water resource management was introduced in areas of scarcity and models developed to study the impact of groundwater withdrawal and other environmental factors. The importance of understanding gender issues was addressed in project design, and particular attention paid to involving media in both understanding and evaluating these efforts.

The Mission achieved almost 95% of its goals within the given timeframe. It was further extended on the basis of its successful demonstration. In later years, the challenge remained of sustaining leadership and political will that could ensure the permanence of genuinely participatory processes. The Mission experience has helped quicken a national conviction that sustainability depends most of all on communities that are empowered at the local level, where people must contend with age-old attitudes and practices, and with vested interests that are threatened by change.

Source: G.Ghosh/A.Chatterjee

Leaders generally have the power to allocate resources. This is a political process, influenced by a wide range of factors. Principled leaders can champion the objective of the right to basic services, amidst all other conflicting demands. Leaders also have the power to remove political or bureaucratic obstacles that the people themselves find insurmountable. Corruption is one of these obstacles, demanding the most urgent attention.

Good leadership rests on broadening the opportunity structure for men and women to empower themselves and to participate in improving society, redefining power relationships where necessary. These attributes, combined with a strategic viewpoint, can help turn this Vision into reality by ensuring the necessary enabling environment, necessary for its fulfilment.

A strategy to mobilise suitable future leaders starts with the leaders currently in power. They can inspire future leaders to take up the VISION 21 challenge and inspire voters to support the leaders that will support their efforts. Further measures may include:

- use of independent media;
- documentation of team experiences;
- investing in human resource development;
- civic education;
- locally relevant courses in governance and with the introduction of basic democratic principles as part of primary school curriculum;
- development of sensitivity to VISION 21 principles among youth, through modified school curriculum.

Participation and Leadership

A 'latrine revolution' in China's Henan Province has provided an outstanding example of political commitment and strong local leadership. It started in 1987 in a few villages in Yucheng county because of the efforts of "Mister Latrine", the physician Dr Song Lexin. It became a provincial programme in 1989 with full support of the Provincial Governor. By 1995, nine of the ten counties most advanced in latrine coverage in China were in Henan Province.

Dr. Song had gone from village to village on his bicycle, discussing the benefits of his latrine with the villagers. After the villagers he visited experimented with a demonstration latrine, they gradually saw that the manure from this latrine made their apples grow larger and sweeter. Conviction that the latrines had made their villages richer was evident even eight years after the 'revolution' began. Most of the latrines were still found to be kept very clean, thanks to the efforts of village women. In most cases, the communities themselves pay 90% of the total costs of their improved latrines. Efforts were underway to develop a revolving fund and other credit options to help spread latrine improvement to poorer villages in the province.

Source: IRC Water Newsletter, Dec 1995

An important aspect is ensuring that water, sanitation and hygiene come high on national and international agendas, through advocacy and other means. This will help to attract future leaders, the committed men and women, who can motivate others to achieve their goals. The support of respected leaders can also strengthen the legitimacy and political leverage of the goals themselves.

The fact that statistics from around the world show serious discrepancies in access of women and men to decision-making and power should be taken into account. The imbalance at leadership levels in all areas, including within the water and sanitation sector, hinders the equitable involvement of both women and men. Concrete strategies need to be developed to ensure greater leadership of women in water and sanitation, and to take into account the implications of related gender imbalances at local government and community levels.

3.5 Developing a culture of collaboration

Collaboration is required to achieve synergy of action - collaboration as everyone's business. This requires dialogue, planning, budgeting and commitment, and strategies leading to action plans.

Collaboration is needed both vertically (between all levels from local communities to national and international authorities), and horizontally (between agencies, departments, NGOs, activists and between the public and private sector). The strategy should involve a framework of collaboration to guide relationships between the people, authorities and sector professionals.

This need for collaboration begins within the water, sanitation and hygiene sector itself. In cases where functions related to water supply, sanitation and hygiene are dispersed and often duplicated, a sense of increased collaboration is essential. A sustainable service is a complex combination of elements of which physical infrastructure is only a part and of which the construction phase is only the beginning.

Traditionally these elements have been the concerns of

Effective Collaboration at Country Level

The effectiveness of country level collaboration is very much a product of the individuals participating in it and largely determined by their interest, openness and communications skills. The following criteria help to facilitate country-level collaboration.

- Any coordinating mechanism or body should be neutral and, in particular, not be controlled by the principal government agency or donor to the sector. It should restrict itself to overall policy and macro-planning and not be involved in implementation. It should act as a monitor of the process of coordination.
- Effective 'coordination' is best achieved by providing a service (such as sector planning and technical assistance) rather than coordination by control.
- The coordinating body should have a secretariat (staffed by active, experienced and respected professionals) through which it can provide services to and coordinate the sector.
- The collaborative process works best when all parties (including non-governmental and community) are involved.
- The emphasis must be on effective communications leading to attitudinal changes among individuals and organisations.
- Complementarity of needs enhances collaboration. Each party brings different resources and experience to the table. Where needs of one agency can be met by the resources of another, collaboration can be very effective.
- The underprivileged, such as the low-income and low caste groups, are frequently ignored. This is also true of women, who should play a central role in collaboration but are commonly left out of the dialogue. Participatory methods are now available to enhance their participation.
- Transparency of information is a key ingredient for project success. Working from a common understanding improves collaboration at the project level.
- NGOs are valuable assets to sector development yet they are too often perceived as being too independent and working outside of government policy and planning. The collaborative process is well suited to building trust and confidence between government and NGOs while at the same time drawing on their considerable knowledge and institutional resources for sector development. Support to NGOs which respects their individual interest and plurality of approaches reduces differences and encourages compatibility between programmes.

Source: WSSCC Working Group on Country-level Collaboration

separate professionals or agencies. They include such issues as dealing with users or consumers; setting tariffs; permitting connections; administrative functions of revenue collection, staff, procurement, stores etc.; ongoing staff training; physical infrastructure, and operation and maintenance. In future these elements will need to work together to consider the service as an integrated whole.

Effective water management requires working with all stakeholders at the catchment and ultimately the river basin level. All forms of land and water use that affect the freshwater ecosystem (and thus the ability to provide sustainable water and sanitation services) need to be planned.

Collaboration is also essential between the water, sanitation and hygiene sector, and related sectors of health, education, environment, community development and agriculture. Particularly important is collaboration between government and civil society. This holds an enormous potential of combining the strengths of specific approaches and skills which each of these partners have with respect to ensuring services, as well as in preserving the quality of the natural environment. Joint action should also be encouraged between activists in water, sanitation and hygiene and in other issues, such as the women's movement or religious groupings. The VISION 21 process itself now offers an experience of collaboration on which all partners can draw.

As in most governments, in United Nations and other external support agencies, functions related to water, sanitation and hygiene are often dispersed and duplicated across several departments. There is a lack of communication and co-ordination and in many instances, outright competition. In recent years a start has been made to restructure these institutions so that issues can be better addressed collaboratively. This beginning needs to be accelerated.

Collaboration between an NGO and a Municipal Authority

Anjuman Samaji Behbood (ASB) is an NGO working in Faisalabad, Pakistan. The people of Hassanpura, a slum community, identified water as a top priority and asked ASB to help them with it. The Faisalabad Water and Sanitation Authority (WASA) would not provide a connection because Hassanpura was included in a possible scheme scheduled for 2008, funds permitting. So ASB and the people decided to go ahead on a self-help basis, with the community providing 100% of the capital costs because they could see the future benefit of ending their dependence on expensive water vendors. WASA gave a Certificate of No Objection, and connected the community-built distribution pipeline to the mains supply.

WASA has gained a new, legal customer at minimal capital cost, while the people of Hassanpura have gained a cheap and reliable water supply. All this was only possible due to the collaboration between the community, ASB and WASA.

Source: ASB

Communities influencing Governments' Decision-making

In 1993, the United States and Mexico established the Border Environmental Co-operation Commission. Built-in openness to public participation has, to date, helped fend off and at times reverse autocratic and technocratic solutions. In pursuing its twin goals of openness and participation, the commission has been aided by BECCnet, an Internet-based discussion group.

Since its initiation in 1995, BECCnet has significantly influenced decision making on a number of occasions. Several projects have garnered widespread community support. For example, the Integral Project for Water, Sewage and Wastewater Treatment of Naco, Sonora (in Mexico), drew uniformly strong support from the public and from environmental groups. This project attempts a comprehensive solution to water supply, wastewater collection, and treatment. Implementation of this project, which was completed in 1997, is alleviating the ongoing problem of crossborder sewage spills into Naco, Arizona (in USA), meeting the water infrastructure needs of the community of Naco, Sonora and reducing groundwater abstraction through agricultural reuse of the treated wastewater.

Source: IRC

3.6 Prioritising for hygiene and sanitation

Without the support of adequate sanitation and hygiene practices, it has been demonstrated that water supply alone has a limited impact on public health. The hygiene and sanitation future essential to this Vision is not only feasible through available experience and technologies, it is also affordable. This leaves no excuse for resisting change, in which the essential factor must now be sound hygiene behaviour. A strategy for hygiene and sanitation, where opportune integrated with water services, is therefore essential to achieve greater

health improvement. Such a strategy must reflect the local reality of water resources, which can vary significantly e.g. between dry and humid areas.

While it is justified to include sanitation and hygiene within a basic requirement (see chapter 4), the flawed tendency to assume an automatic link between water supply and sanitation has denied sanitation taking its rightful place as a major intervention for improving the human condition. Inclusion of sanitation and hygiene next to water affirms that these are three independent, though interlinked, interventions each of which can have a positive impact on people's lives and on a healthy environment. Future planning needs to reflect this synergy.

There are important implications here in planning for human development. Some community-based sanitation projects have shown sanitation's potential as an entry point for gender equity and empowerment, and hence for other development work. Some have moved away from the traditional subsidy-led approach (which does little to realise people's genuine priorities for sanitation or to reduce their dependence on outsiders) towards awareness raising and social marketing.

Changing household hygiene behaviour is one of the most effective means to prevent disease transmission. For this, formative research must be encouraged so as to develop effective social marketing approaches (particularly on excreta handling and on hand washing). Therefore hygiene education and communication for behaviour change must be a key element in future strategies.

In sanitation, the most important unit for decision-making should be the household. Its members need to be encouraged to begin by improving their situation unaided, using their own resources. If they have difficulties, they need to be able to involve the broader community to help. If the community in turn has a problem, it should be able to involve other levels: perhaps first the district, then the provincial or state authorities, and finally access support from the national level.

An Example of an Integrated Programme of Hygiene, Sanitation and Water

NEWAH (Nepal Water for Health) is a Nepali NGO that has recognised the need for hygiene promotion and education as an integral part of water and sanitation projects since its inception in 1992. Over the last ten years NEWAH has developed an extensive programme of hygiene promotion and education in its projects. The programme is tailored to the specific needs, cultures and locations of the communities.

The main points usually covered by the hygiene education are:

- safe disposal of excreta (including from children)
- hand washing at critical times
- disposal and use of waste water
- protection of drinking water in transit and in the home
- food hygiene
- domestic and environmental hygiene
- knowledge of paths of infection
- simple domestic treatment e.g. oral rehydration therapy for diarrhoea, saline-rinsing for eye infections, water-cooling of burns

A detailed study of the impact of hygiene education in all projects carried out in one typical year (with a combined population of some 50,000 people) showed major improvements both in people's knowledge and their actual practices. These improvements corresponded to real health gains: people reported 58 deaths from diarrhoea in the project areas in the year before project implementation, which reduced to zero in the following year.

NEWAH's experience shows that integrating hygiene promotion and education with water and sanitation projects is a very successful approach to maximising the benefits to a community of a supply of safe water. NEWAH is actively sharing its experience and lessons with other, larger agencies active in water and sanitation in Nepal.

Source: NEWAH, Nepal

No-Subsidy/Low-Subsidy Sanitation in India

The Sulabh movement created by Dr B Pathak and a small group in Bihar state in 1973 as a microlevel project for social reform and cost-effective sanitation has evolved into a major movement. Its prime mission is to uplift the miserable conditions of millions of scavengers who traditionally have cleaned human excreta manually. Sulabh developed and introduced a system of pay-and-use community toilets with additional facilities for bathing, washing and 24-hour attendant service. Soap powder is supplied for hand washing. Users have to pay a nominal charge for toilets while children, the disabled and the poor enjoy free service. Use of the urinal is free. This zero-subsidy system is a unique example of community awareness and participation, which has extended to the development of other low-cost, water-saving and user-friendly sanitation technologies. The result of Sulabh's efforts is a dramatic decline in open-air defecation, the conversion of some one million dry latrines into Sulabh toilets used by over 10 million people each day, and employment opportunities for 50,000 persons in this commercially viable enterprise. Resettlement in other employment has been achieved for 50,000 scavengers through education and training schemes for them and their families.

Source Sulabh Sanitation Movement, New Delhi

Communities and leaders must feel responsible for ensuring that sanitation and hygiene are a genuine priority alongside, or even ahead of, water supply. School sanitation, in particular, can play a crucial role. A combined strategy focusing on education of children at school, coupled with the availability of adequate facilities, and parents education can have optimum impact.

A demand-responsive approach to sanitation requires a social marketing effort aimed at demand creation. This function is distinct from the provision of sanitation and requires specific expertise. Social marketing can also encourage people to invest in sanitation with loans or from their own resources.

Private sector organisations (e.g. soap manufacturers, who often reach the most remote rural areas) can play important roles in transferring messages,

Innovations in Hygiene and Sanitation

The Socio-Economic Units Foundation in the Indian State of Kerala has played a major role in India's first effort for universal coverage with permanent, consistently used latrines of good quality. The Units focused on enabling local government and water committees to plan and implement their own sanitation programmes. The programme was launched to provide poor households with permanent latrines. A demand-responsive approach was developed before that concept had become internationally recognised. 36,000 latrines (that are in general consistently used and well maintained) were constructed between 1989 and 1994, before the programme began to move to scale. Hygiene education, drainage, chlorination of wells and school sanitation programmes were added. For the first time, poor families contributed substantial amounts (equivalent to around one month of the official poverty-line salary) before construction and provided materials and services related to construction. After the programme gained popularity, the local government began contributing 15%. Later, state and national governments began to provide contributions. The cost of a latrine (at 1995 prices) ranged from the equivalent of \$55 to \$76 with an overhead of \$3 to \$6 per unit. Due to strong cost control, this is less than half the cost of the same model of latrine under other programmes. The programme combines two features usually thought to be contradictory: a demand-sensitive approach and equity.

Source: IRC (Netherlands) and SEU Foundation (Kerala, India)

Research is required towards a better understanding of who has sanitation and hygiene responsibilities at household and community levels, and how these responsibilities can be supported. Past experience in other areas of technology development has shown that while women are often expected to do much of the labour involved in new processes, more often than not they are excluded from having any influence on choices and are constrained by lack of information. Women as well as men need to be involved in decision-making and planning, and to get equitable access to information and technology.

The need for changes in roles should also be investigated. Past emphasis on women has assumed that men do not have responsibilities in health education and hygiene, and therefore attention has so far been directed primarily at women. There is now a need to focus more strongly on men, to ensure that they accept their own responsibility for health and hygiene at both household and community levels.

Sanitation services will also need to be developed in a framework that supports healthy life and living with dignity, balancing the needs of people with those of a healthy environment. The twin objectives of people leading healthy and productive lives and a protected and enhanced natural environment must be met. To achieve this, additional work on several factors is needed. Presently sanitation technologies are being developed that minimise the use of scarce water. The importance of accelerated research and development in this area cannot be overemphasised in the context of the great variety of urban and rural needs and capacities.

It is becoming increasingly difficult to sustain the present level of waste disposal services. The future needs a systems approach to environmental sanitation, which can be ecologically sound. This must also respond to growing scarcity of water and the high cost of conventional sewage systems. All this will need urgent attention to the recycling and re-use of water and waste, reduction of discharge, and better means for protecting human health. Ecologically improved systems require further research and investment in technology development and promotion.

Various “ecological sanitation” efforts are now underway in many parts of the world. One of those is an experiment that attempts to change prevailing concepts of sanitation by keeping pathogens (faeces) apart from nutrients (urine) and water. It underlines the need to transform the way most societies regard human excreta, associating it with shame and disgust. Instead, human excreta should be accepted as a resource to be used rather than as waste to be discarded. If human excreta is to be used as fertiliser in food crop production, as one input in a poverty-reduction strategy, there is a further need to identify the roles of women and men and to focus inputs accordingly. In many parts of the world, women have the prime responsibility for food crop production and therefore would be essential actors in such basic processes of change.

Innovative Options in Environmental Sanitation

There are three main components of excreta: nutrients, water and pathogens. Most pathogens come from faecal matter, while most nutrients come from urine. Because most pathogens need nutrients and water to stay alive and reproduce, it is highly desirable to keep pathogens (or faeces) apart from nutrients (urine) and water. Therefore it is also highly desirable that these are not mixed. If urine and faeces are never combined, each is easier to handle and process to take advantage of the resources and regenerative capacity of each. This would make it easier to recycle and reuse the nutrients and water-holding as well as soil-building capacity of excreta. It would prevent environmental contamination and help restore the reproductive capacity of land. Less freshwater would be used to transport excreta away from people and less artificial fertilizers used to restore fertility to the land. The challenge therefore is to eliminate the concept of waste, and not the waste itself, and to move toward natural resource conservation.

‘Ecological sanitation’ practices are now being applied in Asia, Africa, Latin America and Europe. In El Salvador, a peri-urban community discovered that diversion of urine eliminated flies and smells, and eco-sanitation units have been installed in homes. In Mexico, people are experimenting with urine in urban agriculture as well as for growing traditional foods. In Kenya and Zimbabwe, “arbor loos” are being developed to plant trees for household use. In the Pacific, livelihoods were threatened by dumping into coastal waters. ‘Ecological sanitation’ solutions were implemented to reduce contamination and restore fish populations. In Sweden, eco-communities are selling urine to farmers to apply to cropland.

Source: Esrey and Andersson

3.7 Integrating gender into planning and action

Strategies are essential which can ensure that a gender perspective informs each stage of action toward realising the goals of VISION 21. Its achievement is impossible without a more equitable and efficient sharing of roles and responsibilities between men and women. Gender alone is not the only dichotomy; there are others, involving class, religion and ethnicity. But dealing with gender can also raise the capacity to deal with other concerns.

The gender approach can be controversial because it raises sensitive issues that challenge power structures and confront social and cultural norms. This reality demands the utmost care and respect from communities, governments and donor agencies.

10 Lessons on Gender

- 1: Gender is a central concern in water and sanitation
- 2: Ensuring both women’s and men’s participation improves project performance.
- 3: Specific, simple mechanisms must be created to ensure women’s involvement.
- 4: Attention to gender needs to start as soon as possible.
- 5: Gender analysis is integral to project identification and data collection.
- 6: A learning approach is more gender-responsive than a blueprint approach.
- 7: Projects are more effective when both women’s and men’s preferences about ‘hardware’ are addressed.
- 8: Women and men promote project goals through both their traditional and non-traditional roles.
- 9: Non-governmental organisations and especially women’s groups can facilitate a gender-balanced approach.
- 10: Gender-related indicators should be included when assessing project performance.

Source: the World Bank’s Toolkit on Gender in Water and Sanitation

One approach to reach priority for gender approaches is through ensuring ongoing gender analyses. These can track the contributions of women and men, assess the impact of interventions upon them, reveal the pace of change and progress and identify means to more

equitably involve both men and women. Excellent tools and techniques exist for this, developed and tested throughout the world during the Water and Sanitation Decade.

Experience has revealed that the water and sanitation sector is inherently biased towards men, and often as a consequence, against women. The biases which operate include general preferential attention to men (as discussants, informants and participants) and discrimination against women as clients, participants and stakeholders as well as the failure to value adequately the work of women in household water management. The consequence is a perception of women's contributions as secondary and supportive rather than central in the sector.

Households and communities are often treated as undifferentiated homogenous units, in turn leading to a neglect of inequalities within households. Women are perceived as dependants of men and often treated as a vulnerable group rather than as key actors. The result is that efforts to involve women are often regarded as a 'kindness' to them rather than as a factor essential to effective development within the sector.

Awareness raising and training is essential to ensure that sector professionals are sensitive to gender issues and know how to deal with them. Institutions, trainers and curricula for capacity building, as well as training tools are all available.

There is also a need to analyse the sector itself - i.e. its processes, structures and institutions – from a gender perspective so as to assess and remove any built-in constraints to promoting greater equality. Networks can speed and assist the flow of information and experience in gender issues between countries and between the North and South. All this will require funding mechanisms. Sector budgets are needed that seriously reflect an acceptance of gender considerations. Methods and experience have emerged over recent years that can relate the costs of mainstreaming gender to its enormous benefits. Their use and promotion are matters of the most urgent relevance to the realisation of VISION 21.

3.8 Responding to the urban poor

In finding solutions for urban water supply, sanitation and hygiene, particularly in peri-urban areas, the same actions apply as mentioned in section 3.1 The urban poor should be seen as active leaders in their own development, not as passive recipients of other people's aid. Water, sanitation and hygiene should be planned specifically to use the leadership, energy and creativity of the poor who should benefit the most.

Gender in Nepal

Nepal is a male-dominated society in which women have low status and position. The Nepal Government's Community Water Supply and Sanitation Programme, supported by UNICEF, aims to ensure women's participation by institutionalising their roles in planning, design, sanitation promotion, hygiene education and monitoring and evaluation.

Phoolmati Rajbanshi is a Sanitation Motivator in this programme. This work has changed her life. Participating in meetings along with men was a new experience for Phoolmati. It allowed her to express her own opinion and to seek the opinions of other women on issues that were important and now within her capacity to improve, such as health and hygiene. Exchange visits provided Phoolmati's first opportunity to travel far from her village. Husbands or fathers of the women participants often accompanied them on these visits, which was a sign of the community's support for the changing role of the women. Phoolmati's small remuneration from the project supplements her family income. She has new confidence due to the recognition of her capabilities. Now she has many plans to improve her economic and social situation. So, also, have other women in her village for whom she is a role model.

Involving women in the programme has brought better results. Systematic studies have compared project areas with and without women's involvement in the CWSS programme. They showed higher coverage and maintenance of both water supply and sanitation facilities, better hygiene awareness and lower incidence of water- and sanitation-related diseases in those areas where women were involved.

Source: UNICEF Nepal

The particular potential of women in urban areas in advocating and implementing change should be identified and built upon. In many urban areas women have taken responsibility for promoting and implementing improvements to water supply and sanitation and for health education inputs. Efforts need to be made to increase women's participation in decision-making and resource management in these areas.

Recent developments can guide urban strategies. The first of these is the development of new partnerships. These can reflect the unique characteristics and complexities of working in informal settlements, which require collaborative efforts in service delivery to the urban poor. Policy constraints are often cited as a key reason for not extending services, even where policies are not restrictive. Utilities are not well equipped to deal with working conditions in informal settlements, including problems of revenue collection. This creates a disincentive for expanding services, and thus requires the support of partners, particularly from the settlement itself.

The second issue is policy and institutional frameworks. The private sector (formal and informal) can bridge the gap between the utility and the poor. However, appropriate standards, guidelines and regulations are necessary to safeguard the poor from exploitation. Experience suggests that clear operating rules and procedures are essential for increasing access and affordability for the consumer. Where these are not present, the "middle man" is often the beneficiary, developing price fixing cartels and employing other mechanisms to increase profits. Non-governmental organisations (NGOs) and community based organisations (CBOs) can play an important role in regulating the price of water to the poor through community owned kiosks/systems that sell water at affordable prices. They in turn may need assistance to develop their commercial capabilities. Decentralisation should be seen as one of the major steps towards better urban services, provided a solid institutional basis is available. Building these urban institutions is the challenge.

Innovation in Urban Water and Sanitation

1. In Port-au-Prince, Haiti, the public water supply contains enough water for everybody, but only 12% of families are connected to the mains supply. Others have to buy water at higher cost from various private tanks, trucks or carriers. NGO's have therefore established locally based water committees to take responsibility for water distribution within particular neighbourhoods, using a single point supply from the water company. Each committee constructs and operates its own secondary network within a neighbourhood and charges an agreed tariff to the users to cover both the water company's bill and the cost of running the secondary network. The results to date include:

- 10% more of the city's population (specifically in poor neighbourhoods) receive a good water supply
- those people pay much less for their water than previously
- the water committees are using surplus funds to construct other community facilities (e.g. drains, showers, meeting rooms)
- there are good relations between the NGO's, the water committees and the water company, which will lead to more similar systems in future

Sources: Hydro-Conseil

An Informal Settlement in Kenya

Kibera is an informal settlement of some 500,000 people in Nairobi, Kenya, with a density of 2000 people per hectare. A needs assessment was carried out on behalf of the Nairobi City Council to prepare for a major water supply project. The assessment team met 99 community-based groups, 31 institutions (e.g. churches, schools) and many individuals. They assessed community priorities in general and collected specific information on water, sanitation and hygiene issues. Among their findings were:

- The community's overall priorities included: urban environmental sanitation; roads; hospitals; schools; security and street lighting; electricity. Within that list, the environmental sanitation topics were generally ranked 4th.
- Under the general heading of urban environmental sanitation, half of the communities ranked excreta disposal as their highest priority, and half water supply. Drainage and solid waste management were also important, although not highest-ranked.
- Regarding excreta disposal, the people's suggestions included: making latrine pits more accessible for emptying services; requiring landlords to provide adequate latrines for their tenants; introducing payments for use of communal latrines.
- Regarding water supply, the people's suggestions included: establishing more water user groups to manage water distribution; establishing communally-managed tapstands to compete with existing privately-owned tapstands.
- Regarding drainage and solid waste management, the people's suggestions included: replacing open drains by pipes; siting waste collection points in all the community areas; paying for private sector waste collection.

Source: UNDP/World Bank Water and Sanitation Program

A third recent development is in technical innovation. The unplanned and densely populated nature of many poor urban settlements limits the applicability of conventional technology and systems. In addition conventional systems are often expensive to install and run, and costs cannot be recovered at rates that are affordable to the poor. New approaches are therefore necessary to improve service delivery at affordable levels while enabling revenue collection by the utility.

An issue to address is the respective roles the consumer, the public sector and the private sector. In many cases these roles are not clearly defined. The result is an asymmetric flow of information and very little transparency. Tariffs are often based on political rather than on cost factors, and give the consumer little chance to judge their fairness.

New approaches to cope with the urban crises require extensive research and development work. Such work should receive international support, as each country undertakes research and development specific to its own situations. This can be a major area of global cooperation and sharing.

3.9 Transforming legislative and institutional arrangements

Democratisation and decentralisation processes call for an adaptation of the legislative and institutional arrangements that are presently available in most countries. Activities based on household or community action require arrangements that are supportive of decentralised action.

The trend toward communities and local governments to implement their own development should be pursued with vigour. The development of organisational capacity of the poor should be encouraged, so that they can advocate and act for themselves. The movement towards decentralised autonomous water supply and sanitation organisations and the trend of governments acting as enablers and becoming supporters of decentralised initiative should also be encouraged more strongly. In all this the necessary balance between human rights and human responsibilities, indispensable to democratic approaches, needs to be ensured. The furtherance of these trends requires political commitment, leadership and strong pressure from civil society on behalf of the poor, to ensure that systems actually do serve them better.

Legal and institutional reform can release both human and financial resources for the achievement of the Vision. There are many immediate benefits in enabling service institutions to generate sufficient income to cover costs and ensuring that they are accountable to users and operate efficiently and sustainably. Viable institutions must have access to capital markets, reducing the burden of new services on governments. They will

A Peri-urban Community in Uganda

Banda is a peri-urban community in Kampala, Uganda. The majority of its 12,000 people make a living by casual labour in the city. It suffers from over-population, under-employment and poor sanitation. As to water, most people are served by a few unprotected springs.

Three years ago the people of Banda formed a community development association with the objective of improving conditions in the community. Water and sanitation were the highest priorities. The people protected the springs and also started a piped water supply. They built domestic and communal latrines and constructed surface water drains. They set up user committees to ensure proper usage and maintenance.

The piped water scheme was an immediate success. Eight vending points were constructed, and the community selected water vendors who are employed by the community development organisation. The scheme charges the lowest water charges in the city, yet it successfully pays the vendors and their supervisor, the water bills to the National Water Corporation, and the repairs to the distribution system. Within the first year, three more vending points were constructed.

Although the people's water and sanitation needs have not yet been fully met, the community's initiative in Banda has become a model for other groups in the city, who come to learn from it how they can also start their own water and sanitation programmes.

Source: Charles Wabwire

also be responsible for major maintenance and upgrading, financed from revenues and again relieving government treasuries of financial burdens. Extension of services to unserved communities by such institutions thus becomes a realistic proposition rather than a hope.

The private sector, from large scale organisations to small entrepreneurs and community groups, has been involved historically in many aspects of water and sanitation operation. Economic realities in recent years have brought privately owned organisations to the financing of water supply and sanitation services. Privatisation should not be seen as a panacea under all circumstances. There is, however, a strong case for involving the private sector, particularly small enterprises, when other means of reform are blocked and financial constraints are encountered. At local levels, small enterprises, including artisans and mechanics, can play an important role in supporting neighbourhoods and communities to arrange for their own services.

In many cases public-private partnerships may have a strong role to play. Governments will need to have a controlling and promoting/enabling function, through a legislative frame. Each country could consider a range of contractual arrangements and codes of conduct for private sector initiatives, suited to local politics and culture. More insight is needed in opportunities of various groups of the private sector, from small enterprises to large corporations. Discussion on alternative advantages and disadvantages can help clarify the interests and capacities of various potential players to fulfil their role.

Organisational structures for managing water supplies can include:

- user co-operatives (particularly suited to managing small-scale drinking water and sanitation infrastructure in rural and peri-urban areas), in cooperation with NGOs or government agencies;
- private sector initiatives, under government regulation;

Shared Management of Water and Sanitation Services

In the drought-prone State of Ceara, one of the poorest states in the North East of Brazil, a Federation of community-based organisations is responsible for the operation and maintenance of all water supply and sanitation services. This system is known as the Integrated Service of Rural Sanitation (SISAR). The Federation has a board comprising seven community-based organisations, three municipalities, the State Water Company and one donor agency. The Federation serves 20 municipalities with a population of 41,000 service users and 5,600 connections. This partnership between the water company, municipalities and community-based organisations aims to bring the management of the service closer to the users and to strengthen the role of each partner. SISAR's objectives are to ensure financial sustainability of all operations, transparency of management, collaboration between the members of the Federation, and hygiene education of the population.

The Federation has been able to break even on operation and maintenance costs, with a 90% cost-recovery rate. The Federation has noted that the poorest users are paying their bills on time. Hygiene education has resulted in significant reductions in infant mortality and in the incidence of cholera. Poor people, who have traditionally been excluded from progress and subjected to top-down policies, have gained access both to water and sanitation and to the decision-making processes. This in turn has achieved a change of attitude among those people. In addition, access to water has provided new economic opportunities for these communities, thus reducing migration to cities.

Source: L.C.Fabbri, D.Hautbergue, World Bank

Privatised Sanitation

The Rural Sanitation Programme in India started in the late 1980s. One element of it is an Alternate Delivery System, of which Rural Sanitary Marts are a part. The Rural Sanitary Marts aim to educate people about hygiene and sanitation in order to create a demand for improved sanitation, and then to make the necessary sanitary items (such as latrine components) available locally at reasonable prices.

The RSM programme in Uttar Pradesh aimed specifically to shift from a subsidy-based programme (the traditional Government approach) to a privatised one. Over the years, it was noted that offering a much lower subsidy actually increased the sanitation coverage. This idea was replicated in several other states. In Allahabad, the RSMs went further to nil subsidy. Between 1993 and 1998 they sold over 35,000 latrine sets. Under the traditional subsidy system, this would have cost the Government \$17.5 million. Under the new system, it only cost \$60,000 of external support plus managerial support for one and a half years. After that time the RSMs broke even and became commercially viable.

The RSMs have spread across India. National statistics indicate that four times as many people have constructed latrines through private initiative as through the Government's traditional subsidy programme.

Source: UNICEF

- governmental and semi-governmental enterprises (public utilities) and municipal services, mainly in cities;
- centralised water departments under a national ministry which manages drinking water and sanitation facilities in rural areas and small urban centres.

Water supply and sanitation services are mostly local in nature. Central governments are often not well placed to deal with them adequately. It is therefore desirable to devolve responsibilities to a level as close to the ultimate users as possible and to formalise service standards and accountability mechanisms. Other important issues include the clear definition of roles and responsibilities of all actors, effective management of sanitation services in addition to water services, and the balance between financial efficiency and social equity.

The implications of the constraints women face relative to men (in terms of human rights, access to and control over resources, and involvement in decision-making) should be taken into account. The potential impacts of increased private sector involvement on women also need to be investigated. The fact that women have informal (and often less influential) roles and responsibilities should also be taken into consideration. Opportunities for actively involving women's organisations and networks should be examined.

These institutional and governance factors demand change in the role of support agencies. As agendas will be set increasingly at local levels of decision-making, external support must therefore be sensitive to needs and aspirations reflected in a process of decentralisation.

3.10 Mobilising resources for affordable services

The human and financial resources to bring the Vision to reality exist, but their mobilisation requires increased effort.

Mobilising human resources is a task for leaders and sector professionals. It must begin with recognition of people's energies and creativity as the most important asset. Human resources development constitutes an essential part of the mobilisation task, oriented towards problem solving. To make the Vision a reality a hands-on approach needs to be pursued vigorously. The human resources to be mobilised can be developed effectively through a five-pronged approach, including formative years, vocational training, university education, continuous learning and research capacity strengthening.

Mobilising Human Resources

Guinea-Bissau is one of the poorest countries in the world, with a life expectancy of 45 and an acute shortage of trained and professional people. The PROCOFAS project is supported by the Water Supply and Sanitation Collaborative Council and UNICEF. It is innovative in terms of mobilising and using human resources effectively in several ways:

- all its staff are nationals of Guinea Bissau, who have developed the project without expatriates
- it aims to change attitudes and behaviours both in communities and in institutions such as the Government
- its working methods in the field vary according to conditions in individual communities
- it works by sharing the time of the extension workers of other, existing, development programmes and hence gives them new skills and experience
- it is led by an interdisciplinary project team of people with expertise in their respective sectors
- its staff begins each project by living in the village concerned.

Source: PROCOFAS

How to finance water and sanitation services has been hotly debated over the past years. Many governments have provided these basic services, bearing both the capital and operating costs and charging little or nothing to the users. This has generally proved to be unsuccessful and unsustainable. Resources for proper operation and maintenance are often lacking, and there is lack of funding for further capital investment. This approach can be summed up as: "a free service means no service".

This Vision presents another approach. It argues for a central place for local people in planning and management. This implies that a dialogue must be started with users and communities at the initial stages of projects, on levels of service, tariffs, revenue collection and administration of services. Their involvement can lead to better recovery of costs and more sustainable services. From small villages to large cities, such consultations will vary in complexity. Consequently, the issue of how such dialogues are planned and conducted requires careful thought.

For discussions on willingness to pay, it is necessary to identify and consult with all user groups as well as to consider all uses of water, and to understand the different values placed on each. For example, agricultural users normally do not pay, although they often constitute the largest use of water resources. It is also important to investigate who within households will be expected to pay for water and sanitation services. Women have the greatest responsibility for household water, sanitation, hygiene and health in many parts of the world. At the same time they often do not have the access to or control over the resources and decision-making powers that would allow them to implement their role effectively.

Any discussion of willingness to pay needs to distinguish between needs and demands. Those with greatest needs in communities may have the least potential for making demands. Users are more willing to pay if operation and maintenance is managed at the local level and if the agency involves them or communicates well with them on levels of service and tariffs. The role of non-government initiatives, both commercial and community-oriented, is emerging as a major factor in broadening economic and social options.

Tariff structures need to be designed to ensure equity and to avoid the rich benefiting at the expense of the poor. The rich should pay the full cost of services. In the case of a regular service, experience shows that recovering full operating costs and part of the capital costs from poor people is often possible. To maintain equity, in some cases a special tax or stepped tariff systems may need to be applied, so that subsidies can be used for those who cannot afford the regular tariffs.

It is Expensive to be Poor

In Port-au-Prince, Haiti, a comprehensive survey showed that households connected to the water system typically pay around \$1.00 per cubic metre, while unconnected consumers forced to purchase water from mobile vendors pay from a low of \$5.50 to a staggering high of \$16.50 per cubic meter.

Urban residents of the United States typically pay only \$0.40 to \$0.80 per cubic metre for municipal water of excellent quality.

Residents in Jakarta, Indonesia purchase water for between \$0.09 and \$0.50 per cubic metre from the municipal water company, \$1.80 per cubic metre from tanker trucks, and \$1.50-5.20 per cubic metre from private vendors, as much as 50 times more per unit of water than residents connected to the city system.

In Lima, Peru a poor family on the edge of the city pays a vendor roughly \$3.00 per cubic meter, 20 times the price paid by a family connected to the city system.

Since the poorest normally spend all their income on food, the money spent on water is most often sacrificed from the food budget.

Source: Dr. P. Gleick

Tariff Policies

A study by the UNDP/World Bank Water and Sanitation Program, based on data from Guayaquil, Ecuador, concludes that an adequate tariff system should promote both efficiency in the use of the water resource and financial soundness in the water utility. If the resultant tariff system would exclude the poor from receiving a service, a subsidy is needed that can be provided by the Government's social security system, not by distorting the water utility's tariffs. As another solution, poor people can be cross-subsidised by richer people within the tariff structure. The Guayaquil study produces some clear lessons:

- tariffs should cover all costs
- any subsidies should be explicit and aimed at the poor
- other than those subsidies, tariffs should not discriminate between different consumers
- fixed charges should be minimal, so that the total charges relate to the volume of water used
- charges should be collected efficiently (to avoid the people who do pay their bills cross-subsidising those who do not)
- the water utility should have good data on which to base its tariff calculations.

Source: UNDP World Bank Programme

Expansion of services needs to ensure that those without a service receive benefits first, prior to enhancement for those already served. Service levels need to be consistent with local affordability. Care should be taken that demand-led approaches encourage, and do not in any way restrict access to water, sanitation and hygiene by the poor.

Such encouragement may need to involve the creation of mechanisms that give the poor easy access to funding. Examples include the micro-credit arrangements by the Grameen Bank in Bangladesh, the Ramakrishna Mission in India and Social Funds in Africa.

Bangladesh: Grameen Bank' Credit for the Poor

The Grameen Bank is well known as a provider of credit to more than 2 million poor and landless people in Bangladesh. A large proportion of the clients are women. The bank's great innovation has been to find an alternative to traditional forms of collateral. The key principle is that if any borrower defaults, the group to which that borrower belongs is no longer considered creditworthy and is no longer eligible for loans.

In recent years, the lending of the Grameen Bank for rural water supplies has risen dramatically. Since early 1992. The bank has provided loans for about 70,000 tubewells. In 1993, it lent about US\$16 million. The interest rate charged on loans for tubewells is 20 percent, repayable over two years in weekly installments. The handpumps are procured locally by the borrowers, either from the Public Health engineering Department or from local private manufacturers.

Source: UNICEF data as cited in: Ismail Serageldin, *Water Supply, Sanitation, and Environmental Sustainability: The Financing Challenge*. Directions in Development. (Washington, DC: TheWorld Bank, 1994)

Since an increased level of local financing is expected, experience has yet to indicate in how far the principles of VISION 21 will influence total figures of required external resources. It should be noted, however, that while financial considerations are clearly important, the more significant challenge is that of mobilising political will. Detailed arguments and justification on precisely how much is needed should not receive undue emphasis. Nevertheless for a variety of purposes an overview of total global funding may be required. An estimated need is to the order of about US \$ 9 billion per year over the next twenty five years (see box on the next page). This estimate is within the range of current expenditures, and reflects the potential for cost recovery that is possible through political determination.

Encouraging Private Initiatives

A key element in decentralised planning and implementation is the need to mobilise initiatives outside of governments and conventional authorities. This demands defining roles and responsibilities for the private sector, a blanket term that can cover a variety of interests. Involving the private sector is often seen as the key to resource mobilisation and greater efficiency.

Privatisation can also be regarded as a threat of exploitation, endangering those whose needs are urgent and whose means are limited. Firm regulation by public authorities of private initiatives therefore assumes importance, particularly in negotiating with large-scale operators with the advantage of access to resources and influence. Such regulation needs to reflect transparent systems of decision-making within which the interests of civil society are strongly represented.

Equally relevant is understanding the range of circumstances within which private initiatives need to be encouraged. Rural and peri-urban situations are usually less attractive to large operators than the economies of scale which cities provide. Therefore privatisation may need to encourage small-scale water vendors, suppliers of sanitation services, mechanics and artisans. Experience in West Africa reveals how effective such mobilisation can be.

NGOs have demonstrated their ability both as service providers and in building management capacities. The Orangi Pilot Project in Pakistan and the Sulabh movement in India are examples of efficient urban service and the capacity to independently mobilise resources on a significant scale.

Privatisation also raises the issue of ownership of natural resources. Conditions of scarcity in many parts of the world demand attention to this neglected aspect of the water crisis. It is often only the rich who can afford to dig deeper, establishing their ownership over a resource that should belong to all. The political, legal and ethical dimensions of this challenge are yet to be addressed. They underline the importance of equity and efficient service as benchmarks in assessing initiatives for problem-solving.

The World Summit for Social Development in Copenhagen in 1995 recommended that developing countries should allocate 20 per cent of their public expenditure to basic social services for all – covering water and sanitation services as well as primary education, primary health care, reproductive health care, family planning and nutrition. As a counterpart, it recommended that donor countries should allocate 20 per cent of their annual aid budgets to the support of the same sectors. In 1998, the estimated actual allocations were 13 per cent and 10 per cent respectively, although these benefited particularly the health and education sectors, and much less the water sector. Increasing both figures to 20 per cent would generate the additional resources required to meet water and sanitation goals. The 20 per cent figures based on original pledges remain valid and useful targets.

Most developing countries have huge debt burdens, which drain enormous amounts from their resources each year. The pressure for debt relief is increasing. A recent suggestion for an arrangement that 20% of such relief should be used to finance health, nutrition, water supply and sanitation deserves serious attention. Linking debt relief to basic service delivery, as a form of debt swap, can serve the dual purpose of relieving countries from their excessive debt burden whilst ensuring that the money saved is invested in the future of the country and the welfare of its people.

Mobilising External Resources

There are currently thought to be 1.1 billion people without water and 2.9 billion without sanitation. By 2025, the world's population will have grown by some 2 billion. Hence the numbers to be served by then will be approximately 3.1 billion for water (comprising approx. 0.7 billion rural and 2.4 billion urban) and approx. 4.9 billion for sanitation (comprising 2 billion rural and 2.9 billion urban).

For a basic level of service in accordance with the principles of VISION 21, the average external costs per person (i.e. additional to the costs borne by households or communities) may be estimated as US \$15 for rural water and \$50 for urban water, \$10 for rural sanitation and hygiene promotion and \$25 for peri-urban sanitation and hygiene promotion (in some countries these costs may even be lower).

Multiplying these figures gives a total of approximately \$225 billion to be spent over 25 years, i.e. approx. \$9 billion per year.

Current estimates of annual expenditure on water and sanitation in developing countries vary in the range \$10-25 billion, most of which is spent on higher level services in urban centres whose cost is not recovered from the users. Therefore these outline calculations show that the requirement for more money for the water and sanitation sector depends mainly on the political will for cost recovery.

The roles of the different major funding sources will be as follows:

The governments of the developing countries are, and will continue to be, the main source of funds for water and sanitation. By improving the efficiency and cost-recovery of existing urban water and sanitation schemes that serve richer people, the governments' money would become available for the basic community-managed rural, peri-urban and urban services advocated in VISION 21.

Aid finance will continue to be important, as it is generally allocated to basic services for people who are currently unserved.

Finance from privately owned organisations will be important, but will generally not be used for basic services. It will be used to provide higher level services, from which the private sector can recover costs to make a profit. This characteristic of this type of private finance follows from the World Bank's database on Private Participation in Infrastructure, which shows that private investment in water and sanitation in "developing countries" to date totals \$25 billion, of which none is in South Asia and less than \$0.25 billion is in Africa. These are the two regions with the largest unserved populations: this indicates that private sector investment is insignificant in providing basic water and sanitation services to people who are currently unserved (it needs to be added, however, that in many countries in Asia and Africa informal private small scale entrepreneurs have successfully provided access to water in large parts of the cities (water vendors, tanker owners, mechanics, artisans, etc.

Sources: various UNICEF and World Bank publications, analysed by J. Lane

Some Comparative Costs

* In Europe \$11 billion is spent each year on ice cream,

* In the USA and Europe \$17 billion is spent on pet foods

* In Europe \$ 105 billion is spent annually on alcoholic drinks, ten times the amount required to ensure water, sanitation and hygiene for all.

(Source: Human Development Report, 1998)

3.11 Practising water resources management

As populations increase and the pace of development accelerates, integrated water management must ensure adequate supplies of drinking water. Water for household use risks being under-prioritised in relation to other uses which are considered more productive. Particularly in circumstances of scarcity, water for basic needs should be reserved, acknowledging the human right to water. Water to support the livelihood of the urban and rural poor, including their livestock, is often of equal importance and can form a direct way to address poverty.

A strategy of prioritising water to fulfil basic water and sanitation requirements will achieve adequate water availability, if underwritten by adequate legislation. Often the planners who allocate water resources have limited experience of drinking water, so it is important to explain such messages clearly to them.

Conflicts over shared water uses can be minimised by setting standards of allocation and establishing mechanisms to recognise and resolve differences before they become conflicts.

It needs to be emphasised that water availability alone is not enough. Since drinking water quality is an important determinant of human health, it should also be fit to drink. Unfortunately outbreaks of water-borne disease continue to occur with significant health effects worldwide. Even where water supply and sanitation standards are high, drinking water probably contributes to a significant proportion of prevalent disease.

Risks to the individual from infectious water-borne disease are likely to be highest where water is collected from unprotected sources. They are less in the case of protected sources and intermittent piped supply, and are lowest in continuous piped in-house supply. However, due to the fact that tap water is not always safe water, piped supplies can present a particular risk to public health through the distribution of contaminated water, unless these systems are carefully controlled. Consequently, drinking water quality measurement is an important component of monitoring systems, especially for utilities supplying large communities. The subsequent public reporting of water quality information must be a major element of the regulatory system, ensuring the public accountability of service providers.

Quality of water sources for drinking water is often poor, resulting in extensive cost of treatment and considerable risk from treatment failure. Source protection, through effective pollution control and more importantly, better catchment planning and protection, can reduce health risks as well as costs. Poor sanitation and accompanying lack of sewage treatment are directly linked to disease and environmental degradation, which in turn reduces the availability of clean drinking water.

Ecosystem conservation is vital for meeting the basic needs of people. Properly functioning, well-maintained freshwater ecosystems are the basis of a secure system water supply and sanitation. In addition to social and environmental benefits, freshwater ecosystems, and the biodiversity they support, have a value, which exceeds the provision of water and the absorption of pollution alone. With the present state of knowledge it is not always clear in how far mankind's actions influence the environmental security that underlies the social and economic security of humanity. For all these reasons the avoidance of pollution deserves the highest priority, in all countries of the world. Where pollution can not be avoided, the application of the "polluter pays" principle should be rigidly applied.

The need for reliable information on water quality and quantity should be addressed. In addition to bacteriological contamination attention is also required for chemical contamination of water supplies, such as arsenic and fluoride in groundwater and mercury contamination from artisanal gold mining.

3.12 Stressing additional issues towards VISION 21

Appropriate technology

Over the years, many technical options in water and sanitation have been developed to suit a variety of needs. The situation in both drinking water and sanitation has underlined the importance of developing options and choices that correspond to local needs and resources, as well as to new requirements.

Considerable technical expertise now exists and is being turned to recent challenges such as improved management of surface water (in regions where groundwater resources are inadequate or contaminated), the development of alternatives to conventional waterbased sanitation techniques (such as the experiments now underway with ecology-friendly techniques for excreta disposal that reduce waste usage and allow for the separation and re-use of faeces and urine) and pollution control. The opportunity now is to make optimal use of the network of training and research institutions which exists worldwide, and to encourage contact between sector professionals and users towards innovation.

The importance of building and sustaining such contact is a major lesson from the past. It points to the importance of relating to people as consumers, responding to their preferences and providing services which users need and are willing to pay for. The emphasis is therefore on improving traditional technologies (such as rain water harvesting and capturing fog and morning dew), rather than departing from them; on widening the range of choices available (both low-cost and others which may need larger, more centralized investments) and on the need to provide services as components in a sequence that correspond to user preferences and capacities, typically starting from the household level.

Experience also points to the need for strong emphasis on technologies which are user-friendly for both men and women, that encourage a sense of ownership and that can play an empowering role. These technologies tend to be low in cost and technically simpler than many others that professional engineers often prefer. Access to larger, more complex technologies may also be required, as in many urban situations. In each case, the need is for a clear understanding of user needs and preferences as well as clear participation by users in the technical choices that are offered and made. The particular needs of women users require attention, as in most contexts women have less access to improved technologies than men. There is a need therefore to improve women's access to information, training and decision-making opportunities in relation to technology.

Rainwater Harvesting: An Appropriate Technology

Rainwater harvesting actively draws upon traditional management systems and knowledge. It uses simple technology, which can be maintained at the household level. No new organisational structures are needed for operation and maintenance.

Recent successful applications of rainwater harvesting include Thailand, where rainwater harvesting has been massively promoted in rural areas, with consequent increase in safe water coverage. In Gansu Province in China, Project 121 provides water for 1.2 million people through rainwater harvesting. Widespread rainwater harvesting in Hessen (Germany) has boosted the local economy significantly. In Gujarat, India, the Vision 21 NGO Committee has decided that rainwater harvesting is a priority for group action.

Many water sector professionals believe that rainwater harvesting will become increasingly important in the future because:

- ground water in many places is falling in level;
- surface water in many places is increasingly polluted;
- population pressure is forcing people to move into water-scarce areas;
- as safe water coverage increases, the remaining unserved people tend to be in areas that cannot be served by more conventional means.

Source: Hans Hartung

Operation and maintenance

Operation and maintenance, frequently neglected, are critical to sustainable water and sanitation services. Whilst less attractive to politicians, financing agencies and even engineers, operation and maintenance of existing facilities should receive higher priority than investment in new structures. New partnerships with communities in urban areas and full management by rural communities can relieve utilities and central authorities of expensive and inefficient operation and maintenance systems while improving the standard of service. Extensive experience on a range of options now exists.

Water demand management practices are an essential component of good operation and maintenance. They should be used to ensure that scarce resources are efficiently allocated and used.

Good operation and maintenance of sanitation systems includes prevention of negative environmental impacts through inadequate treatment or poor disposal. In both the industrialised and developing world inadequately treated wastewater is resulting in severe environmental pollution.

Operation of water supply and sanitation services are closely linked, especially in urban communities. This should be recognised in planning water supply and environmental sanitation programmes.

Community-managed Operation and Maintenance

The Laipurkharka water, health and sanitation project in Nepal was completed in June 1997. People from 33 households obtain safe water from 5 public tapstands. Every household has an improved latrine and a drying rack for dishes. The tapstands are cleaned regularly, and two caretakers maintain the water system. The Project Management and Maintenance Committee (which comprises people from the village and which supervises the caretakers) collected initial lump-sum payments from each group of tapstand users and now collects a fixed monthly sum from each household. Each household also provides two containers of grain for the caretakers twice a year after harvest.

The maintenance funds are deposited in the bank but are not just left there. They are used to promote other development in the community in two ways: the Committee gives loans to community members at below-commercial rates; and the Committee has loaned money for a village shop run on a co-operative basis and returning 15% of its turnover to the maintenance fund.

This system of community-managed operation and maintenance which also promotes local development is typical of many NGO-promoted small water projects.

Source: Newah

Disasters, emergencies and conflicts

Natural disasters are apparently becoming more severe and more frequent due to the much-discussed global climate changes. Such disasters can have devastating effects on water, sanitation and hygiene, frequently made worse by human activity such as deforestation. Poor people are inevitably the worst affected. As preparatory measures all countries, specific to their situation, should establish disaster warning, mitigation and relief systems.

Examples of Water-related Instability and/or Resolution

1. In 1986 North Korea announced plans to construct a hydro-electric dam on the Han River, upstream of the South Korean capital, Seoul. The North Koreans need the electricity, but the South Koreans can see its potential as a military weapon: if deliberately breached, the dam would release enough water to destroy most of Seoul. To date the dam has not been built, but the South Koreans have built a series of levees and check dams to protect Seoul against such a threat.
2. The water resources of the Middle East are limited and poorly distributed. Water-related disputes have been documented in the region for 5,000 years. For example, the use of the Jordan for irrigation has provoked armed conflict between Israel, Jordan and Syria on several occasions since the 1950s. However, after many years of hostility and of negotiation, the Israel-Jordan Peace Treaty of 1994 explicitly addressed and resolved a variety of contentious water issues over the River Jordan basin.
3. The Ganges and Brahmaputra basins together contain 400 million people, many desperately poor and dependent for their survival on the seasonal flows of those rivers. For decades India and Bangladesh in particular failed to agree on the use of these shared waters, with diplomatic conflicts reaching the UN General Assembly. India's Farraka Barrage, which was built without international agreement, was a focus of tension because it blocks the Ganges just upstream of the Bangladeshi border and can divert its water away from Bangladesh. Finally, in 1996, the two countries signed a water-sharing accord regarding the Ganges and agreed to conclude further treaties for more than 50 other shared rivers and to work for mutual benefit on augmenting the dry-season flow of the Ganges.

Source: Dr. P. Gleick

Emergencies caused by human conflict are affecting growing numbers, either directly or by displacement. These groups are highly vulnerable. With normal social structures and development processes breaking down, they are under stress and prone to disease. The impact of poor water, sanitation and hygiene is therefore much worse than in normal life. On the basis of information and experience in many countries and at several UN agencies, each society needs to ensure that preparatory plans are in position to enable effective and timely action in emergencies. The need to protect civilian populations from these dangers would seem to require urgent attention.

Conflicts also exist at household and community levels. The difference between needs and demands - or the ability to make demands – deserves emphasis. The needs and rights of marginalised groups should be highlighted, as well as strategies developed for ensuring their involvement in decision-making processes.

As populations and levels of industrial development grow, competition among users for limited water resources will increase. In some areas this competition has taken the form of disputes between domestic, environmental and agricultural water users. This points to the urgent need for shared water resource management and first priority for meeting human needs.

Competition for Water

Competition for water occurs often in places where men and women, and women amongst themselves, have to share scarce water resources. Because projects are often not designed for different interests of different stakeholder groups, competition and conflicts arise resulting in the exclusion of use for some or in damage to the systems. For example: competition between male livestock uses and women domestic uses or between women themselves with interest in economic use of water.

Source: IRC

Given the present division of responsibilities over water in many parts of the world, women are often hardest hit by disasters, emergencies and conflicts as they strive to meet the basic needs of their families. Provision of water can become a hazardous occupation for women in situations of insecurity, as many experiences, even in refugee camps, can illustrate. As in many other aspects of service planning, here again there is a special responsibility of attention to women's needs.

Issues of special reference to Industrialised Countries

Recognition exists in the industrialized countries of the social and economic importance of water resources to be treated and distributed to households, as well as for used water to be collected and treated before it is returned to the environment. This recognition reflects the importance placed on hygiene and on environmental quality in achieving acceptable standards of living.

National debates still persist in finding an acceptable balance between improvements desired in drinking water and environmental quality and the

United States: Unbundling

The Sanitation Districts of Los Angeles County (SDLAC) is an alliance of 27 special districts under one administration. The basis of the special districts is the County Sanitation Districts Act of 1923, which provides that geographic drainage areas, rather than political boundaries, should be the determining factor delineating sanitation districts. A sanitation district may include single or multiple municipalities and unincorporated areas, or combinations of both. The sewer service area of the SDLAC is about 770 square miles (1970 sq. km) and encompasses 79 cities and unincorporated areas. It has a population of five million and wastewater flows ranging from 0.1 mgd (million gallons per day) to 365 mgd.

Community-level sewer systems (laterals) are the responsibility of individual communities that may take care of the systems themselves or enter into a contract with the LAC Department of Public Works. There are 11 satellite sewage treatment facilities treating sewage from some of the communities. The treated wastes are used for such things as irrigation of highway landscaping and golf courses.

Most of the effluent flows to a sewer network that has about 1,000 miles (1,600 km) of trunk sewers and 48 pumping stations. Wastes are treated in a joint wastewater treatment plant and five water reclamation plants. This is an example of vertical unbundling. In the same area, horizontal unbundling also takes place. Two separate agencies operate trunk sewer systems. The City of Los Angeles takes care of wastes from communities within the city boundaries; the SDLAC looks after the area outside the city and a number of smaller communities surrounding the city.

Source: Office of Information Services, Sanitation districts of Los Angeles, "Joint Outfall Systems, Master Facilities Plan," Volume 1

costs essential to their achievement. This has led to judgements on the ability of citizens to pay for the investments required, on strategies for cost-recovery and inevitably about the rates that must be charged to achieve such goals. Discussions have occurred on how services to less affluent members of the community may be subsidized while requiring others to pay full costs. Thus financing and charging arrangements, and hence the infrastructure itself, are at varying stages of development within societies clearly committed to the universal provision of piped water supply and public sewerage systems.

EU Urban Waste Water Treatment Directive

In the late 1980s politicians in Europe decided that the provision of urban sewage collection and treatment facilities was fundamental to the well being of all 350 million people in the European Union's Member States. They adopted a Directive in 1991 requiring all Member States to provide these facilities in a phased programme ending in 2005. They provided funds for certain countries that needed particular support over this period. Progress is regularly monitored at European level.

This Directive is an example of politicians having the will to ensure that all their citizens have access to particular services. It has provided a model that other countries are also adopting.

Source: VISION 21 Coordinator for Industrialised Countries

Several key issues have emerged through the effort in industrialized countries to achieve the goal of "affordable provision of reliable and high quality water supply and sanitation which respects the natural environment". Many of these offer a valuable resource of learning for others whose experience is in the earlier stages of development. These include such matters as efficient operation and maintenance, defining the central role of governments as regulators, equitable pricing structures, strategies for effective public participation in planning and decision-making, alternative incentives and mechanisms which can encourage and regulate private initiative, the impact on the sector of population growth and rapid urbanization as well as advocacy of its needs at all levels of decision-making. On issues such as pollution control and the impact of climate change, industrialized countries can offer an early warning system, providing advance knowledge that can greatly improve planning and action elsewhere.

Technologies now in use or under development in advanced economies for balancing costs with improvements in both the quality of service and of the environment, also offer options for future needs. These include the development of improved waste-disposal and water conservation systems. The patterns of sector partnership which have emerged in the North, particularly in terms of private initiative and enterprise.

Challenges in Advanced Countries

To date, the advanced countries have the knowledge, skills and resources to overcome their challenges. Among them will be: - the need for more reuse/recycling, increasing the productivity of water use, infrastructure renewal, modification/improvement of treatment processes to meet new and emerging threats to potable water supplies and in wastewater treatment. The investment in existing systems is so large that by far the greatest majority of these will continue to be operated for the foreseeable future, albeit subject to modernisation and modification as circumstances dictate.

For big cities around the world, whether in rich or not so rich countries, there seem to be few viable alternatives at present to the conventional water supply and waterborne sewerage systems. The problem is that no other alternative to this has the same degree of operational experience, over a long period, in many different climatic and cultural situations. This is not a satisfactory state of affairs. The present approach suffers from:

- huge investment and depreciation costs
- high energy costs
- high levels of skills are needed to operate the systems
- most of the residuals produced, both solid and liquid, are not wanted by the communities involved and, unless carefully managed, the natural environment struggles to absorb them.

What is needed is the development of a portfolio of alternative, reliable water supply and treatment systems that will do the following: -

- greatly reduce investment/depreciation costs
- have a much lower energy consumption
- are capable of operation with reduced knowledge/skill levels
- offer alternatives to the existing large size monopolistic systems.

This suggests the possibility of smaller unit systems, especially for wastewater treatment and recycling/reuse, capable of easy extension on a modular or other basis as urban areas grow, and capable of private sector operation in a competitive environment. R&D work on alternative systems is ongoing but the work is not well publicised and, at present, it is not known what costs, energy consumption and skill levels will be involved.

Source: IAWQ

Developing countries can note that in the industrialized world, the role of the citizen has been pivotal to advances experienced in this sector. As a result, consultative mechanisms and better accountability have emerged to assist the trust that is essential between providers and users. A variety of models for citizen participation are available, reflecting a range of systems and cultures.

For some countries, particularly those of central and eastern Europe and the former Soviet Union, experience in the developing world can be a useful resource in efforts to cope with their own situations of transition. Mechanisms for such exchange need encouragement and facilitation.

To transform VISION 21 into reality, a major contribution must come from the more fortunate toward assisting the less advantaged. Cooperation from the industrialized countries will need to include the sharing of experience, information, technologies and training facilities as well as programmes of assistance which encourage self-reliance. Development cooperation must take the principles discussed in this document into full account, however. In all this, sustained financial aid flows from advanced countries to those most in need of water and sanitation services, coupled with debt relief, will be essential if VISION 21 is to be transformed into reality.

4. SETTING TARGETS AND INDICATORS AND MONITORING ACHIEVEMENTS.

4.1 Goals and targets

Goals are implicit in VISION 21. The goal of all people with safe and adequate water and sanitation and living in a clean and healthy environment represents the pinnacle of achievement of the Vision. This in turn demands other goals such as those of people's participation, poverty reduction, gender balanced development, environmental sustainability, good governance and human wellbeing.

Numerical targets are important to measure progress toward achievement. To build motivation, targets should be realistic and achievable. Such targets can powerfully motivate decision-makers through demonstration of progress measured by indicators. These provide rallying points to which everybody can contribute. It is noted that the indicators through which targets in the sector are quantified are often vague: for example, many professionals refer to "adequate" water or "a basic quantity" of water. A more specific concept of the Basic Water, Sanitation and Hygiene Requirement is therefore introduced as a basis for implementing strategies, which start at the household level. Each country should establish and adopt the minimum standards of service by which it will measure its own progress in achieving the Vision. No universal standard is possible, due to cultural, social or environmental differences. However, the adoption of national minimum standards can offer a basis by which progress is measured and communicated.

The Basic Water, Sanitation and Hygiene Requirement

Field experience and studies suggest that there is a minimum quantity of safe water required for a person to drink, prepare food, ensure personal cleanliness and hygiene and use a sanitary latrine. Drinking and cooking need 10-15 litres per day. Hygiene and sanitation needs are less precise, and vary between cultures. These needs suggest an absolute minimum of 20 litres per day, for a person who understands personal hygiene needs and uses a latrine. However, any estimate of a minimum requirement may need to be qualified by other considerations, such as level of service, culture, and distance between a water source and the user. It also needs to be remembered that further health benefits accrue when communities move from public tap to house connections, and that those with house connections usually use 40 or more litres per head.

Each person needs to practice good hygiene. Hygiene plays a critical role and must be seen as a major contributor to human wellbeing. Many agencies do not include hygiene and sanitation in the Basic Requirement, and consequently hygiene and sanitation are neglected. What constitutes good hygienic practices varies from culture to culture although the common aim is to break the faecal-oral transmission route of disease. As part of a national basic requirement each country should adopt and promote a limited number of key hygiene practices which they recognise as essential to good health.

Sanitation is one of the most important interventions in improving the human condition. Disposing of human wastes in a manner which does not contaminate the environment and which further limits the likelihood of transmission of disease from person to person is a fundamental requirement. Minimum sanitation standards should be established at national level.

Sample targets for Vision 21 that can be adapted at any level are given in the following table, knowing that countries vary enormously both in their current situation and in their speed of improvement. Each community, city or country, is encouraged to set its own overall targets along these lines, as well as to set intermediate targets as stepping stones towards the long-term ones.

Suggested targets for 2015 and 2025	
2015	<ul style="list-style-type: none"> • universal public awareness of hygiene • percentage of people who lack adequate sanitation halved • percentage of people who lack safe water halved • 80% of primary school children educated about hygiene • all schools equipped with facilities for sanitation and hand washing • diarrhoeal disease incidence reduced by 50%
2025	<ul style="list-style-type: none"> • good hygiene practices universally applied • adequate sanitation for everyone • safe water for everyone • all of primary school children educated about hygiene, • diarrhoeal disease incidence reduced by 80%.

Reaching the targets on the basis of people's strengths and initiatives at household and community levels needs the support of enabling conditions, as identified under the core points of the Vision. They include conditions such as political commitment and leadership, empowerment and capacity building both locally and at higher levels, and the availability and application of different institutional options for service provision. Such enabling conditions need action, before reaching of service targets can go to scale. Therefore, an overall strategic plan needs to include associated goals for achieving these enabling conditions, such as central roles for people, collaboration among partners, or women's involvement.

General development targets already exist, such as the OECD's Development Assistance Committee (DAC) targets for the year 2015. However, the DAC targets do not include specific water, sanitation and hygiene goals. Numerical goals involving the Basic Water and Sanitation Requirement should therefore be incorporated into the decision-making processes for international development and poverty elimination.

The World Summit for Children
<p>This first-ever summit on human issues, held in 1990, set 7 major and 20 supporting goals, most to be achieved by 2000. Considerable progress has already been made:</p> <ul style="list-style-type: none"> • by 1995, 59 developing countries had reached the goal (set for the year 2000) of 90% immunisation coverage • polio has been eliminated from 110 countries, and its eradication by the year 2000 looks likely • by 1995, 1.5 billion more people had access to iodised salt than in 1990 • the number of children in primary school has risen by 50 million, and the number of school-age children not attending school has fallen by 20 million • child mortality has declined in all regions of the world • 129 countries have ratified the Convention on the Rights of the Child. More than 50 have started reporting regularly on its implementation <p>Low-cost actions were a big part of this success: Governments have achieved goals by reallocating existing budgets rather than by making big increases in spending. Detailed monitoring has also been vital: by 1995 almost 100 countries had undertaken household-based surveys to assess progress.</p> <p>Source: Human Development Report 1997</p>

4.2 Indicators

Specific indicators are needed to measure progress. Indicators need to be set in terms of benefits and sustainable services rather than only in terms of coverage measured by the number of taps, pipes and latrines. Qualitative benefits, reflecting health and wellbeing, as well as other social processes, such as those related to the enabling conditions, will also need to be tracked and measured, and therefore require their own new indicators for monitoring.

4.3 Monitoring

National or regional efforts to achieve safe and adequate water, sanitation and hygiene depend on collecting data to monitor progress toward the final target. Beginning in the 1960s, data on access to safe drinking water and sanitation services have been collected by national governments and the United Nations. These data provide some insight into progress but have serious limitation.

Countries often use different definitions of “access” to water, both in quantity per person and in distance from the home. Some countries have changed their definitions of “adequate sanitation”. Not all countries report data on access. Data from different years are sometimes combined. The quality of the data can also be compromised by political considerations. Reliable monitoring therefore depends on greater efforts to standardise definitions, to improve data collection and to expand reporting to all countries.

Monitoring in the sector should be used as a tool to help people achieve and sustain their objectives related to water and sanitation. The Minimum Evaluation Procedure introduced by WHO in the 1980’s continues to provide a useful basis for monitoring. It has been strengthened by:

- the involvement of stakeholders, including women, and other partners in civil society in monitoring, stimulated by the movement towards decentralisation of both governments and managements;
- an emphasis on monitoring behavioural change;
- an emphasis on the timely use of the results to improve the programme.

Monitoring can be used to improve achievement of goals and targets. People involved in monitoring can be regularly encouraged to understand the implications of their efforts in both quantitative and qualitative terms. A monitoring system designed to inform stakeholders can also make water and sanitation services more responsive to the needs of people and to the changes in the local and international environment.

Monitoring strategies must therefore focus on:

- immediate use at the appropriate level;
- use of information to solve a problem and improve a situation as soon as possible;
- empowering those who have a vested interest in a problem or issue to control the monitoring process;
- monitoring activities being integrated into on-going programmes.

Water and Sanitation Data

National or regional efforts to achieve safe and adequate water, sanitation and hygiene depend on collecting data to monitor progress toward the final goal. Beginning in the 1960s, data on access to safe drinking water and sanitation services has been collected by national governments and the United Nations.

These data provide some insight into progress, but there are serious, recognised problems with the data. Different countries often use different definitions of “access” to water, both in quantity per person and in distance from the home. Some countries have changed their definitions of adequate sanitation. Not all countries report data on access. Data from different years are sometimes conflated. The quality of the data is sometimes compromised by political considerations.

Reliable monitoring will depend on greater efforts to standardise definitions, to improve data collection and to expand reporting to all countries.

Source: Dr. P. Gleick

In addition to qualitative goals and indicators needed for measuring health and wellbeing, other social processes, (such as those related to the enabling conditions mentioned earlier), need monitoring strategies as well. Building the capacity for monitoring and assessment at several levels thus becomes an essential factor. It should be emphasised that a monitoring system should be practical, and concentrate on collecting only that information, which each institution has the capacity to manage, interpret and act upon. Otherwise the monitoring system becomes ineffective as a management tool and may even hinder progress.

For all these reasons, a major challenge for the implementation of VISION 21 will be the establishment of indicators and simple monitoring systems that effectively measure progress towards its achievement. Indicators and monitoring capacity will be required at local, country and global level and therefore require immediate attention. Existing progress in identifying indicators needs to be reinforced and also made more sensitive to the monitoring requirements and abilities of people themselves.

5. PREPARING A FRAMEWORK FOR MOBILISATION OF ACTION

Through the strength of its participative process, VISION 21 has gathered momentum and support around the world. Action has begun toward its fulfilment in communities and countries, as well as by regional and international groups.

Visions articulated at these levels have begun to emerge, with practical recommendations of what must be done to achieve their realisation. Each experience has been rooted in the willingness of individuals and communities to respond to existing opportunities. These are first steps in a long journey. They mark a significant beginning and demonstrate VISION 21 as a movement well on its way. It is a movement that takes its strength from commitments made at the grass roots, where the most urgent needs are located and where capacities exist to deal with them.

The movement now requires the support of leaders, governments, non-government and private institutions, and of international agencies. A framework for Mobilisation of Action can speed and extend awareness and activity among these partners. Each community, country, and region will have its own aspirations, capacities and needs. The purpose of this section therefore is not to prescribe actions, but rather to offer guidelines, which reflect the core issues of VISION 21. These guidelines have emerged from the most recent consultations among participants in the Vision process.

5.1 Next steps at the community level

The heart of VISION 21 is change among individuals, households and communities. Visions and plans articulated here are the building blocks for achievement at the next levels of national, regional and global action. The expected outputs of such community initiatives are:

- social mobilisation for hygiene, sanitation and water action plans made at community level;
- actual management and participation by communities in water and environmental sanitation services;
- contributions by the community to development, operation and maintenance of services;
- improved water supply and sanitation services;
- application of better hygiene practices;
- a more hygienic environment;
- a higher quality of health and life for the community.

Phast - Participatory, Hygiene And Sanitation Transformation

For many years, conventional messages on hygiene and sanitation have been known and largely understood by people. However, these messages have not translated to significant improvement in hygiene behaviour.

In 1993, the World Health Organisation (WHO) and the Regional Water and Sanitation Group for East and Southern Africa (RWSG-ESA) initiated the Participatory Hygiene and Sanitation Transformation (PHAST) methodology to address this concern. The following year, the methodology was piloted in Botswana, Ethiopia, Kenya, Uganda and Zimbabwe.

PHAST is an adaptation of an earlier participatory method known as SARAR (Self-esteem, Associative strengths, Resourcefulness, Action planning, and Responsibility). Like its predecessor, PHAST empowers community members – young and old, regardless of their gender and economic status – in a participatory process. The methodology assesses people's knowledge base, investigates the local environment, visualises a future scenario, analyses constraints, plans for change and implements an accepted program of action. For these reasons, PHAST relies heavily on the training of extension workers and development of toolkits. The toolkits are produced on-site to reflect the actual cultural, social and physical characteristics of the communities.

Source: UNDP-World Bank/WHO

The following steps reflect the process of building from below and the experience of participants in VISION 21:

1. An immediate assessment is made of local conditions, needs and resources.
2. Feedback is provided to communities on the status of the VISION 21 process locally, regionally and globally. Simultaneously, every effort is made to reach out to communities still new to the Vision process.
3. Local Visions and action plans are encouraged through local leadership.
4. Financial and technical support systems are established as close to the community as possible.
5. Hygiene awareness and education efforts are intensified, as the cornerstone to achievement of safe water and sanitation for all.
6. Institutional reform is initiated to encourage user representation in the management of utilities.
7. Analysis and reform of current practices in costing and pricing of services is used to encourage resource mobilisation and greater self-reliance.
8. Training facilities are identified and strengthened for hygiene education and for the provision of safe water and sanitation.
9. The quality of tap water is improved through better monitoring and implementation of services.
10. External support requirements are analysed toward resource mobilisation and advocacy.

Putting People First: Principles for Action

Against the background of the intention to use people's energies and criteria at all levels, the following principles are suggested. They assume that:

- the role of the state remains indispensable to provide an enabling legal and regulatory environment and foster access to safe water and sanitation for all citizens;
- the partnership between the household or community and the other actors is based on clear roles and responsibilities of each partner and fair rules of the game; community involvement is a gradual learning process that requires a long-term perspective.

The principles are:

1. Partner communities will be consulted before any watsan (water and sanitation) schemes are formulated;
2. When undertaking watsan schemes, the stakeholders will put an emphasis on a process rather than on a project oriented approach;
3. Hygiene and sanitation will receive equal importance and be made an integral part of watsan schemes;
4. Gender equity will be considered in all stages of watsan schemes to ensure effective management;
5. Community organisations will get a legal status within an enabling environment allowing them to operate in security, own the assets or control the source;
6. All stakeholders, particularly partner communities will have access and right to all information concerning the scheme to achieve an equal and transparent relationship in watsan scheme;
7. Indigenous leadership wherever available will be strongly encouraged and supported in all stages of watsan schemes;
8. The stakeholders will incorporate traditional/local knowledge, skills and socio-cultural practices available in the community to maximise the effectiveness of watsan schemes;
9. The stakeholders will strongly take into consideration the views of partner communities in choosing the most appropriate watsan technology and level of services;
10. Every human being will be guaranteed minimum lifetime watsan requirements at affordable prices; water pricing and tariffs will be based on equitable and non-discriminatory water consumption patterns between users to ensure sustainability of community watsan schemes;
11. Various contributions of partner communities will be considered in the ownership of the water and sanitation facilities;
12. The assets created will be owned and maintained by the partner community;
13. The stakeholders will respect the watsan needs of the communities first before exploiting water resources for agribusiness and industrial purposes;
14. The stakeholders will actively promote the protection and conservation of natural resources when undertaking watsan schemes.
15. In private watsan schemes, the interest of the socially and economically disadvantaged groups will be protected and ensured.

Source: Collaborative Council's Working Group on Community Management and Partnerships with Civil Society.

While the Vision process has concentrated on the developing world, where needs are the greatest, it has revealed that improvement is also required in countries where service levels

are high. These include the importance of better accountability to consumers of services, more attention to environmental impacts of inadequately treated waste, and increased attention to water demand management.

5.2 Next steps by institutional service providers

Communities interact most closely with service institutions. While these providers have a critical role in the process of change, the culture of decentralisation and citizen empowerment remains relatively new to them. Rapid urbanisation, and its implications for the urban poor, place particular responsibilities on institutional service providers. Results from institutional reform can include:

- institutional decision-making processes which are more geared to putting people central;
- greater encouragement of user representation;
- regulatory frameworks that ensure transparent and accountable operations;
- response to genuine consumer demand and aspirations;
- management structures that encourage and respect efficiency;
- assurance of service to the urban poor.

Such reform may require:

1. Using the principles of VISION 21 to assess current performance and capabilities of a utility, as well as its future role.
2. Representation of consumers in decision-making structures, and a robust culture of consumer consultation and participation in planning, setting standards of service, resource mobilisation and regulatory frameworks for such issues as pollution control.
3. Development of action plans for improved service, and support to community-driven Visions and action.
4. Institutional reform through the application of sound management principles. These can include greater autonomy in decision-making, sustainable strategies for cost recovery, clear standards for assessing performance and public accountability through regulation.

5.3 Next steps at the country level

National visions reflect the collective strength of local action. Political commitment can thus be encouraged for policy and resource directions needed to sustain real change. The outputs of a national Vision process could include:

Principles that guided VISION 21 Development in Jamaica

The Vision was guided by principles agreed upon by stakeholders at the national consultation in April 1999. These principles were:

1. Partnership and Collaboration among Stakeholders
2. Inter-Agency Collaboration
3. Support for Community Initiatives
4. Greater Responsiveness to Community Needs
5. Improved communication of the responsible agencies with and their accountability to the community; involvement of community in decision-making
6. Application of Appropriate Technology
7. Strengthened Community Organisations
8. Public Education

Source: National VISION 21 Coordinator Jamaica

- mobilisation of leadership at national, sub-national and institutional levels, and the commitment of leaders to VISION 21 principles and thus to the development of country-specific Visions and plans of action;
- policy, legal and institutional frameworks developed or modified to facilitate the implementation of hygiene, sanitation and safe water programmes, using a people-centred approach;
- financial resources and mechanisms that can respond to the needs of people-centred planning, including meeting local shortfalls and the needs of large-scale investments (such as urban service systems);
- other support mechanisms for capacity building, such as the need to assist and advise communities, utilities and the private sector.

The following steps can facilitate the achievement of such national goals:

1. Identification of good examples and best practices relevant to VISION 21 principles, for national dissemination and awareness.
2. Promotion of such examples/practices through field trips and seminars for decision-makers and media, so as to assist inter-sectoral mobilisation.
3. Assessment of country status in the VISION 21 process, as well as of specific sectors. This can help identify areas of strength, as well as needs for reform. Bringing together key stakeholders in a forum of collaboration can facilitate consensus for planning and action. A VISION 21 committee may be considered.
4. Encouragement of the Vision process at a larger number of local/sub-national locations.
5. Development of a national VISION 21, and of a plan of action in its support based on local/national activity.
6. Identification of shifts in policy and attitude that may be required; consultation and advocacy toward such change so as to provide an enabling environment for action plans that are people-centred and community-driven.
7. Development of costing and pricing mechanisms as well as financial and technical support systems which can underpin community decision-making and action, and help promote sector efficiency.

Conclusions from a National Consultation in the Philippines

Changes required to turn the Vision into reality:

Policies

- Legislate an integrated policy framework for sustainable water resources development.
- Adopt and institutionalise an integrated master plan for water supply, sanitation and sewerage.

People

- Change mindsets, attitudes and behaviours through a comprehensive information, education and communication campaign.
- Strengthen and expand the stakeholder base, involving NGOs in the management of water-related programmes and mainstreaming gender-sensitive approaches in water supply, sanitation and sewerage programmes.

Infrastructure/Technology

- Tap additional sources of water.
- Implement a water research and conservation programme.
- Phase out the use of non-biodegradable packing materials.

Enabling Mechanisms

- Share financing responsibilities between the Government and the private sector.
- Put up adequate funds for the implementation of an integrated domestic water supply, sanitation and sewerage system.

Source: National VISION 21 Coordinator Philippines

8. Identification of resource centres for capacity-building through training (including training in participatory methods and gender sensitivity) among government, institutional and other staff.
9. Strategy development for improved efficiency within the sector (including monitoring and assessment criteria) and for institutional reform and regulatory frameworks. Improving the quality of governance within the sector can be a key issue. Issues here can include supervising the private sector, ensuring consumer representation and campaigns against corruption.
9. Concentrated efforts at sanitation awareness and the promotion of more ecologically-sustainable sanitation systems.
11. Emphasis on improving management of natural resources.
12. Priority efforts to improve the quality of tap water.
13. Attention to the particular needs of safe water and sanitation in situations of emergency and disaster relief.
14. Development of education, communication and advocacy strategies and action plans in support of a national VISION 21. Reaching and influencing youth can be important for achieving future goals.
15. Briefing of national representatives attending regional and global gatherings concerned with future hygiene, sanitation and water action.
16. Liaison through a National Coordinator with the VISION 21 activities of the Collaborative Council.

5.4 Next steps at the regional level

Regional partnerships have been a major impetus in the VISION 21 process. They have demonstrated the rich opportunities available for cooperation through existing water and sanitation forums and agencies. Common concerns and the proximity of experience and resource institutions are major advantages, providing a bridge to link contact and action at national and global levels.

A National Vision for Myanmar

The National Consultation held in Yangon on 30 April 1999 with 36 participants resulted in this shared Vision for water and sanitation in Myanmar in the 21st Century:

1. Every village will have at least one safe drinking water source.
2. Villagers will use appropriate technology to get safe drinking water and water for agriculture.
3. Every town will have a water supply system with a treatment plant.
4. Every town will have a pipeline network with 24-hour water supply.
5. Some cities will implement water quality surveillance programmes.
6. Every school will have a safe water supply system.
7. Every school will have sanitary latrines.
8. Every household in the village will use a sanitary latrine with a waterseal.
9. Every town will have a sewerage system.
10. Every town will have a solid waste management system.
11. There will be 100% sanitary latrine coverage in the whole country.
12. Communal latrines will be properly constructed and utilised.
13. Public/communal latrines will be clean with a pleasant smell.
14. Every school will practise hygiene promotion action plans.
15. New groups will be organised for hygiene education.
16. Women groups will participate actively in water and sanitation.
17. Roadside dumping grounds will have disappeared.
18. Myanmar people will participate actively in global campaigns on water and sanitation.

Source: National VISION 21 Coordinator for Myanmar

The outputs at the regional level can be:

- promotion of VISION 21 among countries, institutions and leaders in the region encouraging the development and implementation of regional Visions in every part of the world;
- provision of coordination of regional initiatives which support the aims and purpose of VISION 21 as well as of national and regional Visions;
- service as a forum and focal point for partnerships through the exchange of experience and expertise;
- identification of and support to regional resource centres that can build capacities and networks for the achievement of regional and global Visions;
- encouragement of the development of Regional Visions in support of VISION 21.

Actions toward such regional objectives can include:

1. Initiating and sustaining dialogue between regional partners. For this, regional groups of the Collaborative Council and the Technical Advisory Committees of the Global Water Partnership offer useful opportunities. Groupings such as OAU, ASEAN, SAARC, OAS, EU and other regional organisations can be encouraged to place the achievement of VISION 21 goals on their agendas.
2. Exchange of information and experience through Regional Coordinators and sector networks, toward the development of regional Visions.
3. Identification of regional focal points and of case examples and good practices from the region.
3. Integration and coordination of Vision efforts, including advocacy with regional decision-makers, through strategies developed jointly by National and Regional Coordinators. Goodwill ambassadors in each region can be used to influence national authorities and to support political endorsement of Visions at both levels. Outreach to the region's youth could be an important contribution.
5. Regional resource centres strengthened to provide training and reference services, assisting access to the region's human and financial resources.
6. Promotion of VISION 21 and awareness of its implications within industrialised countries, as active participants and partners. Critical issues for their joint consideration are those of technological development (particularly in sanitation), the implications of climate change, the innovation of environmental assessment systems and of emergency measures, and external finance (including debt swaps) and

Regional Resource Centres

Building the capacities essential for achieving VISION 21 will require strong regional resource centres carrying out research, advocacy, information exchange, training and the strengthening of capacities at the grass roots, as an invaluable support to the water, sanitation and hygiene sector. Such institutions exist in every region. In addition to supportive work over the past years, several of those have contributed to the Vision process. Most of these centres are small, but demands on them for information and training are growing.

A meeting in Bangkok in September 1999 brought centres from the Asian region together to develop an action plan toward stronger partnerships. This includes development of an inventory of Asian resource institutions, documentation of best practices, translations and sharing of literature, the innovation of management and capacity-building tools, and the promotion of an accepted code of conduct within the sector.

Source: WSSCC

technical supports essential to achieving VISION 21.

7. Development of monitoring and reporting systems, including the innovation of key indicators (such as tap water quality) and other management tools.
8. Installation of regional review systems to monitor progress.
9. Emphasis on natural resource management through regional cooperation.
10. Joint responses to strategies for emergencies, including regional action for humanitarian responses and for the reconciliation of disputes.
11. Joint action at regional and global forums to focus political attention on sector requirements in the region.

5.5 Next steps at the global level

Achieving consensus on VISION 21 has been the first phase of a collective response to a global crisis. The Vision process has demonstrated the potential of such an international effort, bringing together the strength of experience in a vast variety of situations. Putting this potential to work in the achievement of Vision goals now demands facilitating future action among communities, countries and regions. At the global level, the following outputs may be expected:

- adoption of VISION 21 by the international community;
- incorporation of Vision principles into policy and strategies within international organisations, including bilateral and multilateral funding agencies;
- commitments by national and international authorities to direct and channel resources (human, physical and financial) in support of the principles contained in the Vision;
- development of support systems, materials and programmes for the achievement of VISION 21.

To achieve such ends, these steps are suggested:

1. Raising awareness of VISION 21 around the world toward its adoption by all countries and by concerned international authorities. This will require efforts at the highest levels of political decision-making.
2. Dialogue and cooperation between global institutions toward the realisation of VISION 21 and of regional visions. Self-assessment can be a test of whether policies and strategies support principles implicit in the Vision.
3. Encouragement of industrial countries to initiate action on developing Visions which

Summary Future Vision of Girls (Class 8 & 9) from Mahadevsthan School in Nepal

There will be a water supply for each and every house. People will be aware, so they will use drinking water properly.
 Every house will have a toilet.
 They will form a forest users' group and they will preserve the forest.
 People will be aware of their health, educated, cooperative and smart.
 After water becomes available in their own house, women and girls will benefit e.g. girls can study more; women can keep their houses and children clean.
 There will be toilets and water taps in our school compound.
 The existing health post will increase its facilities so that they can get advanced treatment also.
 The villagers will get irrigation then they can produce more vegetables and commodities.
 The village will have electricity supply.
 Women will get an equal chance to decide village development and people will use improved resources and income generating activities to get more income.

Source: National VISION 21 Coordinator Nepal

respond to their particular needs, and to the support essential from them to global goals enunciated in VISION 21. This can include the 20/20 formula (see section 3.10) and identification of benchmarks for donor intervention to assist national and regional endeavours.

4. New efforts to mobilise resources for the poorest and least developed countries. These strategies can include reallocation of existing resources into household and community-driven approaches and into low-cost and local-level actions, the promotion of hygiene and sanitation awareness and action, as well as debt relief linked to service development for the underserved.
5. Support for strengthening international and regional exchange of information and experience, as well as for resource centres that can build essential capacities among sector personnel.
6. Initiatives to improve monitoring and assessment systems. These are best taken at the international level, by pooling global experience and skill. Indicators and indices are needed which allow for simple, efficient data collection at each level. Indicators must also be capable of aggregation nationally and internationally. Such systems will need to address maintenance operations, hygiene standards, other water-related issues, as well as the status of participatory and empowerment processes.
7. Documentation and research on options for service provision, particularly in the neglected area of environmental sanitation.
8. Supports for institutional and policy reforms, as well as for improved technical assistance at country and regional levels.
9. Organising joint responses to new challenges such as accelerated groundwater contamination and depletion, global warming and rapid urbanisation.
10. Building the Water Supply and Sanitation Collaborative Council as the lead agency in advocacy for VISION 21.

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Annex 1

SITUATIONS IN REGIONS OF THE WORLD

Knowledge and experience in water supply, hygiene and sanitation have been strengthened during and after the Water and Sanitation Decade. Successes and failures around the world have provided valuable building blocks for future work, reflected in the responses received from the regions through the VISION 21 process. While the challenges for the future are felt most acutely in the developing world, the experience and resources of the industrialized world are keys to future efforts at problem-solving. This section offers a brief overview of the global situation in water and sanitation and its implications for all.

Required Support to People at Local Levels in Senegal

- Strengthen capacity building for information, education and communication
- Train villagers in maintenance
- Strengthen hygiene inspection
- Enable local groups to make their own decisions on developments in their area
- Assist in transformation of waste to compost
- Strengthen alphabetisation in local languages
- Install health committees in villages
- Educate women regarding their rights and responsibilities
- Encourage saving credits, particularly among women
- Educate youth in school programmes about new technologies on water supply and sanitation.

Source: National VISION 21 Coordinator Senegal

Developing countries and Central Asia

Access to water and sanitation services is closely related to each nation's economy. The economic gap between countries has widened over the last twenty years. Many of the least developed countries have been caught in a downward economic spiral. Their governments can find it hard to sustain basic social programmes, including water and sanitation. As a result, it has been difficult for many countries to achieve efficient performance and results. Furthermore, aid programmes often lack the flexibility essential in such cases.

This crisis is most apparent in sub-Saharan Africa. In Asia, the Middle East, North Africa, Latin America and the Caribbean, the situation is generally better (although growing cities represent a critical challenge). The importance of an enabling environment achieved through policy and institutional change is acknowledged globally, and most urgently in the developing world. Issues of equity, gender equality, good governance and access to more appropriate technologies have emerged as priority concerns. Small islands require technologies that can offer economical solutions to their particular constraints of water availability.

The dissolution of the USSR has caused large parts of Central Asia to slip back in quality of service. Throughout this region, the need for institutional reform has assumed importance in meeting the needs of decentralisation and of encouraging private initiative. There is a felt need for collaborative mechanisms which can help promote a

VISION 21 in Kyrgyzstan: Conclusions of the National Consultation

The overall goal is to provide drinking water and sanitation to all citizens of the Kyrgyz Republic as an effort to fight poverty and improve their standards of living and health.

The elements of VISION 21 to fulfil that goal are:

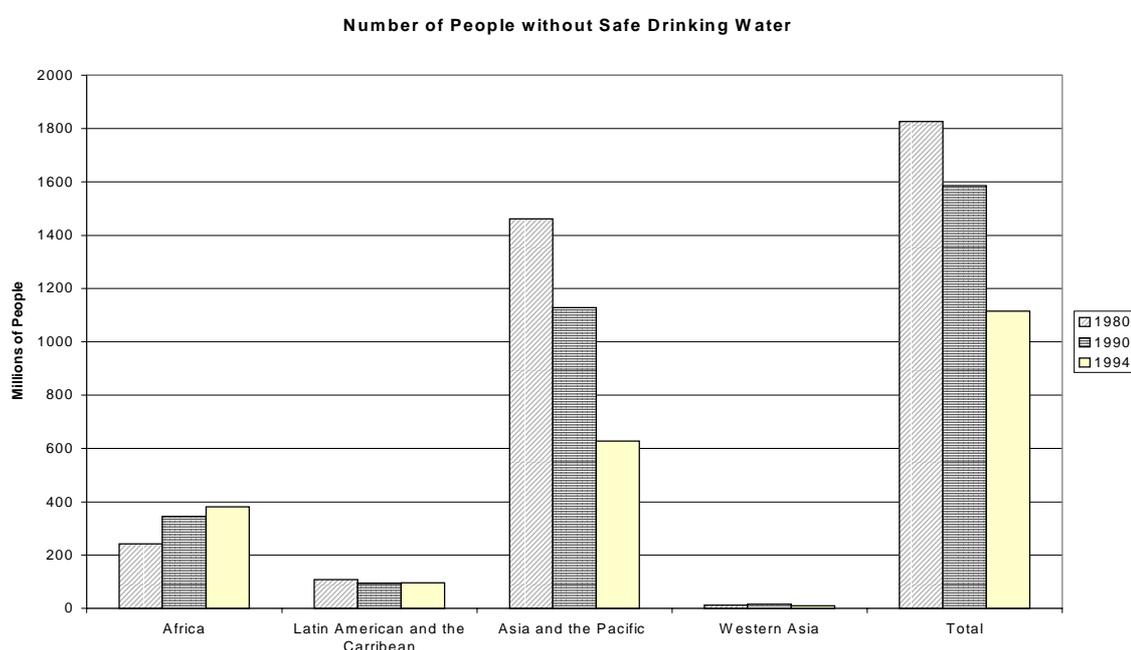
1. Water and sanitation will become a matter of public health.
2. Existing systems of water and sanitation will be rehabilitated, and new ones built, only within the capacity of users to pay and of service providers to operate and maintain them.
3. Institutions dealing with water and sanitation will be reformed and strengthened with focused roles and functions at the national, oblast and local level in order to become self-sufficient in the future.
4. People will participate actively in the payment for water and sanitation services and in the economic and rational use of water.
5. Information, education and outreach campaigns will be conducted on sustainable water use.
6. The experience and lessons learned from water committees and other methods of community participation will be documented and disseminated to activists at the various levels in order to be replicated.

Source: Water Supply and Sanitation Collaborative Council

common awareness and joint action across the diversity of political, economic and cultural considerations which these nations embrace.

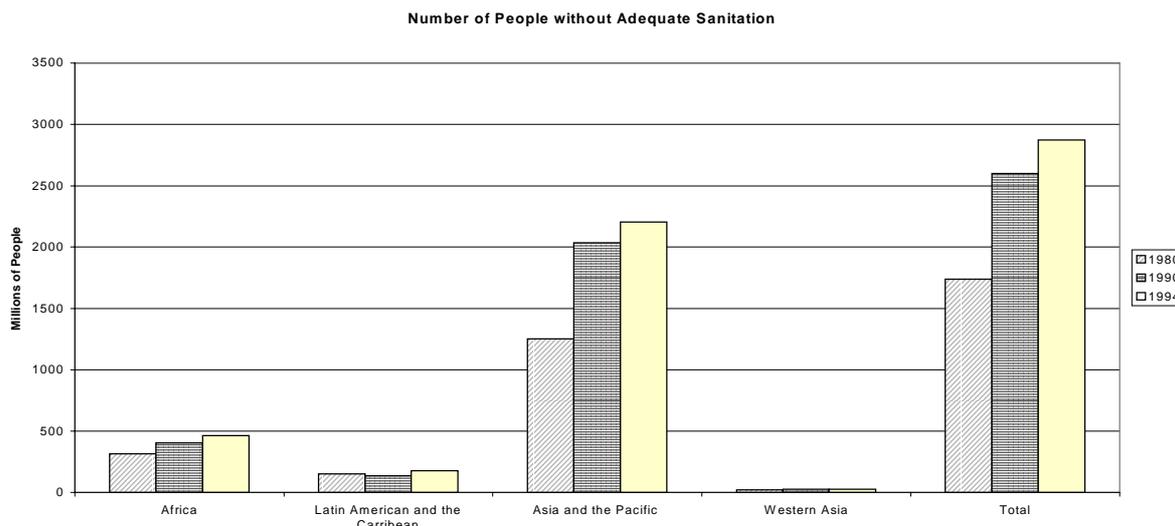
Some countries have demonstrated remarkable social and economic advances, with indices of human development improving at impressive rates. Other countries have been held back by weak economic performance, but even so, some communities and urban groups within them have achieved real progress. Given this wide range of water and sanitation service levels, as well as of hygiene awareness, it is clear that VISION 21 will be applied and interpreted differently around the world. Yet the Vision process has demonstrated how universally its objectives of universal health and wellbeing are shared, including countries more advanced in water supply, hygiene and sanitation.

The headline figures of the overall situation in developing countries are stark: in 1994 1,1 billion people lacked safe water and 2.9 billion lack adequate sanitation. Behind those headlines, we see a mixture of good and bad news.



The good news is mainly about water. More people have gained safe drinking water since 1980 than ever before. Many countries have doubled its provision during that time. Taking the world as a whole, provision of new water services is outpacing population growth.

The bad news is mainly about sanitation. The number of people with adequate sanitation is far lower than that with safe water, and the provision of sanitation is not keeping up with global population growth: between 1990 and 1997, the number of people without adequate sanitation rose from 2.6 billion to 2.9 billion. And yet there are also positive aspects on sanitation, as large numbers of people have gained improved sanitation during the 1990s. (The statistics are vaguer than for water, because some countries have changed their definitions of adequate sanitation.) New designs and low-cost technologies have significantly expanded the options available to both peri-urban and rural communities.



Water- and sanitation-related diseases are increasing. Nearly 250 million cases are reported every year, with over 3 million deaths annually (WHO). Diarrhoeal diseases impact children most severely (see box).

Child and Environment

Illnesses associated with contaminated water kill thousands of people each day. Diarrhoea alone kills more than 2 million young children a year in the developing world. Many more are left underweight, stunted mentally and physically, vulnerable to other deadly diseases, and too debilitated to go to school. A joint strategy has been devised by UNICEF and WHO that seeks to develop a collaborative framework for water supply and environmental sanitation that is linked to the Convention on the Rights of the Child.

Industrialised countries

In industrialized countries, the provision of piped water supply to individual properties has reached a consistently high level. In North America and Europe, well over 90% of the population have access to safe drinking water, even where individual arrangements apply. Public sewerage services are now attracting the attention and the expenditure essential for installing and modernizing infrastructure. Those not connected to services are generally served by other systems, often, as in the case of Japan, by more environmentally friendly sanitation systems. Data (1990) shows that the extent of population connected to sewerage networks ranges from 39% in Japan to 98% in Nordic countries. The average for Western Europe and North America is less than 70%.

The survey carried out for VISION 21 produced the following statistics:

Piped Water Supplies

Country	% Population served by piped supply (1990)
Belgium	97
Denmark	88
France	98
Italy	99
Netherlands	99
Portugal	58
Spain	80
United Kingdom	99

Public Sewerage Services

Country	% Population connected to sewerage network (1990)
Denmark	98
Sweden	95
Netherlands	89
United Kingdom	84
Finland	75
Austria	72
Canada	66
Italy	60
France	52
Spain	48
Japan	39

Annex 2

REGIONAL VISIONS

NB Regarding each of the Regional Vision a Regional Report is available

1. The Asian Vision

A Vision for Asian Societies in the Year 2015

By the year 2015, we, the people of Asia, living in harmony with our environment and as one earth community, interconnected with one another, upholding the principles of ethics and human rights, individually and collectively own and take responsibility to ensure an equitable and good quality of life through adequate hygiene, sanitation and safe domestic water supply with equity for all.

- The men, women and children of Asia, irrespective of social, political and economic standing, acknowledge that we are part of one global community, enjoying the resources of the earth both for our survival and livelihood. We are grateful for such blessings and accept the responsibility of stewardship for the protection, management and care of such a vital resource.
- Water supply, sanitation and hygiene is a fundamental human right. It is a prerequisite for human survival and for a life of dignity and well being because water is gradually becoming a scarce resource and efforts need to be made to minimise wastage.
- It requires urgent action to reach the underserved and unserved population. We see ourselves as part of the problem and agree to become part of the solution. Changes in lifestyle, habits, attitudes and mindsets are necessary. This awareness and realisation must move from vision to tangible action beginning with each individual and institutions leading to a united Asian movement.
- It requires good governance and compassion for transparency and accountability and corruption-free practices.
- We agree on a gender sensitive people-centred and self-reliant development model that promotes consultation and dialogue between and among all stakeholders, empowering those who are socially and economically disadvantaged.
- It includes the use of people centred technologies of high quality work. People's informed choices are respected and not compromised. It should be appropriate for meeting the inter-generational needs of the various societies.
- In the sustainable management of water resources, allocation and utilisation for domestic purposes is of the highest priority.

The Asian Vision was presented in plenary and ratified by the participants.

2. The African Vision

A Shared Vision

A clean and healthy Africa, in which every person lives and participates in a hygienic environment, has reliable access to affordable, safe and adequate sanitation and water for consumptive and productive use.

The Vision addresses five underlying principles:

- the realisation of a clean and healthy Africa
- the role to be played by various individuals
- the need for hygienic environment
- the need to provide reliable access to affordable, safe and adequate sanitation and water
- the need to provide water for consumptive and productive household use

The following changes are required to achieve this Vision:

- People Centred Approach
- Gender Mainstreaming
- More Emphasis on Sanitation and Hygiene
- Behavioural Changes
- Legal Framework
- Equity and Access
- Poverty Alleviation
- Financial Sustainability
- Integrated Water Resources Management
- Mutual Trust
- Private Sector Participation
- Political Will
- Funding
- Appropriate Technologies

3. The Latin American Vision

A Clean and Healthy World:

A world in which each person has drinking water and sanitation, participates in its sustainability, and lives in a healthy environment.

This Vision is based on a set of *key points*, which must be considered for the establishment of the goals and the strategy, as well as for its implementation. Those *key points* are expressed in the following statements:

- People come first
- The human right to basic services
- Point of entry into development and the elimination of poverty
- Leadership and effective government
- Synergy: unite efforts of the different players
- Hygiene and sanitation as a revolutionary priority
- Equality
- Greater attention to the poor population, urban and rural
- Institutional Reform, continuous and sustainable
- Payable services of drinking water and sanitation
- Water is a good with an economic, social, and limited value.

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4. The Caribbean Vision

All people in the Caribbean within the next 25 years have safe, adequate, reliable, affordable water and sanitation facilities and services as a Basis Human Right; in an equitable manner through partnerships, appropriate technology, low cost solutions, gender-sensitive approaches to development, which will ensure the enhancement of the environment and an improved quality of live.

The following points of emphasis were seen as essential next steps to transfer this Vision into reality:

- Education and Training
- Empowerment
- Institutional Strengthening and Reform
- Regional Networking
- Management of Physical Resources
- Fiscal Management

Large emphasis was placed on the role of youth in attaining this Vision.

5. The Group 29 Vision: Central and Eastern Europe, New Independent States and the Central Asian Republics.

A shared Vision

“From transition to a unique position!”

Especially the existing ineffective structures and the connected behaviours have to be changed the way that the sector can be trusted and relied on. The potential of the existing human, socio-economic and natural resources is huge. The challenge is how to reorganise and to manage the sector to take advantage of these resources.

Changes Needed: The Core Points of the Regional Vision

Due to the transition process existing structures in every respect, attitudes and behaviour are undergoing a change. The following changes seem to be the key issues:

- The institutional set-up and regulation measures are to be improved
- Management and administration structures and skills will have to be developed
- Change behaviour on all levels and give the civil society a voice
- Provide and create access to new technologies
- Harmonise standards and measures in the countries concerned and make them affordable
- Improve environmental and water quality.

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6. Industrialised Countries

The Vision

Industrialised countries share a common vision for the world – “Affordable provision of reliable and high quality water supply and sanitation which respects the natural environment”.

This implies that, as much as possible of a country’s population should consistently receive sufficient amounts of good quality water and to have adequate sanitation systems so that its health and general well being are not compromised by the lack of such services. In providing these services the environment must be adequately protected and used in a sustainable way. Drinking water and sanitation should be available to all, even those without connection to piped water or public sewers.

The achievement of the Vision requires a partnership between all concerned, from the individual citizen to governments acting collectively.

Annex 3

THE ORGANISATION OF THE VISION 21 PROCESS

The VISION 21 process is overseen by a Steering Committee, provided by the Collaborative Council Chair. A Task Force stimulates and co-ordinate activities. Action teams work on three parallel lines of effort:

- **Social Mobilisation** through Local Catalysts and National and Regional Co-ordinators working together during January to June 1999, developed local, sub-national (district, province) and national visions. These emerged from one level to the next, in a “fountain” of bottom-up consultations, reaching a fair balance between bottom-up and top-down approaches. Between July and September 1999, sub-regional and/or regional sessions brought the national Visions together in a regional Vision. At the end of the process, in November 1999, a small global meeting brought these regional visions together into a global VISION 21.
- **Knowledge Synthesis** through a team that assembled and analysed current and newly developing knowledge, with the aim to incorporate learning from past and innovative experiences into the emerging new visions.
- **Industrialised Countries inventory**, through consultations with professionals and civil society regarding future developments in the industrialised world and their global impact.

A Drafting Team, responsible for the drafting process compiled the outcome of these three streams, as well as reports from major conferences, outputs from the Vision Management Unit scenario team and other relevant material. These were integrated into the comprehensive VISION 21 statement.

A Linkages Team maintained contacts with agencies and individuals and arranged for organisational backing.

VISION 21 is one of three components of an overall vision for the management of the world's water resources in the 21st century. This broad *Vision for Water, Life and the Environment* will address the issues of *Water for Food* and *Water and Nature*, in addition to the VISION 21 component of *Water for People*. It is being compiled by the World Water Council in readiness for the Second World Water Forum in The Hague on 16-22 March 2000.

Annex 4**REGIONS AND COUNTRIES PARTICIPATING IN THE SOCIAL MOBILISATION
PROCESS OF VISION 21****Africa**

Mauritius
Mozambique
Senegal
Tanzania
Togo
Uganda

South-Asia and South-East Asia

Bangladesh
India (Gujarat)
Myanmar
Nepal
Philippines
Sri Lanka
Thailand

Latin-America

Chile
Ecuador

Small Island Developing Countries

Guyana
Haiti
Jamaica
Trinidad

Central/Eastern Europe & New Independent States

Bulgaria
Kyrzygstan

Note

In each of the countries several local consultations were held, followed by a national consultation, which resulted in most cases in National Vision reports. These formed an input into regional consultations that led to Regional Visions in each of the regions. The present Vision is a result of this collective input. In addition to the reports of regional consultations, reports of the consultations at country level, and of several local consultations are also available.

THE KNOWLEDGE SYNTHESIS PAPERS

Annex 5

In parallel with local consultations in 20 countries, the VISION 21 team commissioned a series of Thematic Papers from recognised experts. The papers, which were reviewed at an Export Group Meeting in Wageningen, The Netherlands, in April 1999, are listed below.

List of papers

1. Ashoke Chatterjee: **Communication for WSS as a Social Process**
Promotes WSS as basic human rights with high priority, along with community empowerment and maximum people's participation in decisions
2. Gourishankar Ghosh: **Some observations on water policy reform and hydropolitics**
An indictment of past failures and a vision of WSS as an entry point for capacity building, greater democracy and poverty alleviation, with environmental sanitation as high priority
3. Richard Jolly: **WSS as an entry point for human development**
The architect of the Human Development Report sees poverty alleviation, girls' education and many other linkages as benefits from WSS investments
4. Jarmo Hukka and Tapio Katko: **WSS as an entry point for human development**
Focusing primarily on the institutional issues of public/private partnerships and appropriate enabling environments
5. Bindeshwar Pathak: **Marketing for the Masses: A New Paradigm**
The founder of the Sulabh Sanitation Movement compares building wastewater treatment plants to protect the Ganges with convincing people that they are killing the "mother". "Marketing is the soul of the masses" is the concept
6. Sulabh International: **A Bird's-Eye View of Sulabh Achievements**
Describes how this remarkable Social Service Organisation has brought sustainable public toilets to more than 600 Indian towns, as well as creating alternative employment for scavengers and schools which bring together children of elite and scavengers
7. Gabriel Regallet: **Community Management**
Extending the concept of community management from a WSS perspective to human development as a whole
8. Bunker Roy: **Rural Community vs Urban Engineer**
A provocative paper firmly placing the blame for WSS failures on the "Urban Engineer" and visualising a future in which village communities control their own water resources via water harvesting and wholesale recharge
9. Roland Schertenleib: **Household-centred Environmental Sanitation**
Coordinator of the Environmental Sanitation Group presents the outcome of a Vision Workshop. The model envisions sanitation decisions and management beginning at the household and progressing to outer circles only when higher responsibility is needed
- 9a. John Kalbermatten, Richard Middleton and Roland Schertenleib: **Household-centred Environmental Sanitation**
An amplification of the HCES Model, developed following the Wageningen Meeting. It includes more detailed descriptions of the "zones" and the decision-making processes in different circumstances. Likely to be the model for environmental sanitation planning and implementation in the coming years.
10. UNDP/SEED: **Water for People: Mainstreaming a Gender Equality Perspective**
First of a series of three (see also 11 and 12) challenging Vision drafters to integrate commitments to gender equality made at international conferences
11. UNDP/SEED: **Water for Food: Mainstreaming a Gender Equality Perspective**
Second of a series of three (see also 10 and 12) challenging Vision drafters to integrate commitments to gender equality made at international conferences

12 UNDP/SEED: **Water for Nature: Mainstreaming a Gender Equality Perspective**

Third of a series of three (see also 10 and 11) challenging Vision drafters to integrate commitments to gender equality made at international conferences

13. Lizette Burgers: **From hygiene education to hygiene-behaviour change**

Urging higher priority for hygiene education as a prime means of preventing infectious diseases, with list of critical actions to promote behaviour change

14. Valerie Curtis: **Sanitation, Hygiene and Health (not Water): A vision for 2020**

An inspirational vision through the eyes of a West African woman in the year 2020 highlighting the benefits of a generation of hygiene improvements and awareness raising

15 Peter Gleick: **Water and conflict**

Looking ahead to the year 2050, when water conflicts are resolved through negotiation and water sharing has helped cope with scarcity

16. Mukami Kariuki: **WSS for the Urban Poor**

Envisioning a world in which the urban poor in informal settlements are recognised as legitimate customers offered affordable services

17. Gordon Young: **WSS, Water Resources and Natural Resources**

Emphasising the integrated nature of water resources and promoting better societal understanding of water dependency, threats and better practices

18. Christine van Wijk-Sijbesma: **Gender Issues in Water and Sanitation**

Emphasising that gender approaches have to include both men and women and that all economic and socio-cultural groups need to be covered

19. Lilian Saade, Maarten Blokland, Francois Brikke: **Institutional needs: critical aspects and opportunities in the WSS sector for the next decades**

Envisioning a landscape of management options for the sector with varying degrees of public/private partnerships. An emphasis on sanitation needs

20. Frank Hartveld: **Human Resources Development for WSS**

Envisioning water professionals trained in mobilising non-conventional funding sources, and notes trends towards multidisciplinary, learning-based, and participatory training

21. Nick Johnstone and Libby Wood: **Private Sector Participation in the Water Sector**

Focuses especially on how the poor can benefit from new forms of PSP, and on strengthening governments' capacities to evaluate PSP

22. Joe Gomme: **NGO Roles**

Foresees a growing role for Southern NGOs as partners with governments and communities. Northern NGOs to assist in strengthening Southern NGOs and influencing donors towards WSS support

23. Belinda Calaguas: **Private Sector Participation**

Sees many models of PSP contributing to universal WSS coverage. Urges improved regulation, codes of conduct, model contracts and documentation of best practices

24. Dennis Mwanza: **Institutional Issues for the Sector**

An African WSS sector professional "dreams" about water coming off the development agenda, because it is as accessible as air to all. The vision is based on new partnerships, determination and commitment

25. Len Abrams: **Sustainability**

Linking inadequate WSS services directly with poverty, and productive use of water resources with wealth creation, the author urges a holistic approach to sustainability

26. Donald Tate: **An Overview of Water Demand Management and Conservation**

Urges consideration of demand management ahead of any supply augmentation, and sees changes in irrigation practices as the greatest challenge

27. Jose Hueb: **Operation and Maintenance**

Based on past failings and new work, the paper commends a commercial approach to O&M with business practices adopted by sector agencies and governments ensuring protection for the poor

28. Desmond McNeill: **Water an economic good**

An abbreviated version of the author's paper (referenced) reviewing the Dublin Principle and pleading for practical application and simplifying of economic theory

29. Kathy Shordt: **Monitoring in a historic perspective**

Projecting forward welcome trends of stakeholder participation, participatory learning, behavioural change and impact assessment into a vision of monitoring as a means of empowerment and a tool for sustainability

30. Ingvar Andersson: **An ESA perspective**

Foresees the WSS agenda being part of broader programmes supported by donors, with optimum use of local resources. Links to urban/rural development, poverty alleviation, ecosystem protection and health programmes

31. Hans van Damme and Ashoke Chatterjee: **VISION 21: The process**

Describes the mechanisms and timetable for producing the Vision

32. Hans van Damme and Ashoke Chatterjee: **VISION 21: Summary**

Shorter version of Paper 31. Describes the mechanisms and timetable for producing the Vision

33. Hans van Damme and Ashoke Chatterjee: **Example of Global Vision and Strategy**

Drawing on earlier drafts to set out a style and possible content of a shared vision

34. Ashoke Chatterjee and Hans van Damme: **VISION 21: Past Learning**

A background document describing some lessons which might be important in framing a vision

35. Andrew Cotton: **Research**

Seeks a research agenda driven by the South with the North providing support. Recommendations based on a GARNET Advisory Committee workshop

36. Willem Ankersmit: **WSS – A bilateral donor's perspective**

Foresees a self-reliant WSS sector requiring no direct support from donors. Steps leading to that vision include donor support via the 20:20 principle, greater involvement of NGOs and public/private partnerships

37. Jamie Bartram: **Water Quality and Human Health**

Contrasts a "nightmare" scenario of business as usual, with a more optimistic vision of better legislation and health policies integrated into water resource management

38. Steven Esrey and Ingvar Andersson: **Environmental Sanitation from an Eco-Systems Approach**

Produced after Wageningen to supplement Paper 9, this highly provocative paper promotes waste as a resource and envisages local solutions involving pathogen destruction, reuse, cultural attitudes, and promotion.

Annex 6.**REGIONAL AND NATIONAL REPORTS****Regional Reports**

- Asia - VISION 21 Proceedings of the Asian Regional Consultation September 24-25, 1999, Bangkok, Thailand
- Africa - A Shared Vision for Africa on Water and Environmental Sanitation – based on the deliberations of the Africa Region Consultation Meeting Nairobi 13-15 September 1999
- Latin America - Second Regional meeting of the Latin American Chapter of the Water Supply and Sanitation Collaborative Council held in Quito from 25-27 August 1999
- Caribbean Small Island Countries - Report of the Caribbean Regional Workshop on VISION 21, September 29-30th in Port of Spain, Trinidad
- Central and East Europe and New Independent States - Regional Vision of CEEC's and NIS, Moscow, 30-31 August 1999
- Industrialised Countries - VISION 21 – Final Report from the Industrialised Countries + Annex with summary profiles

National Reports

Asia

- Philippines - Philippine Country Report, Building a Shared Vision for Water Supply and Sanitation, June 1999
- Thailand - The National Consultation on Water and Sanitation (VISION 21) May 18-19, 1999, Bangkok
- Myanmar - Vision for the 21st Century Water and Sanitation, 30 April 1999
- Nepal – VISION 21 Nepal
- Sri Lanka - Report on the National Consultation Workshop on VISION 21, Water Supply and Sanitation for National Well-Being, 8th June 1999, Colombo
- Gujarat, India - Gujarat 2010 A Vision of Safe Water, Hygiene and Sanitation, September 1999

Africa

- Tanzania - United Republic of Tanzania VISION 21 Report
- Mauritius - VISION 21, Water and Sanitation Mauritius National Report
- Senegal – Conseil de Concertation pour l'Approvisionnement en Eau et l'Assainissement Programme VISION 21
- Togo – VISION 21 Elaboration d'un cadre de partage de l'approvisionnement en eau et de l'assainissement

Caribbean

- Trinidad and Tobago - VISION 21 Report of the Mobilization Process in Trinidad and Tobago
- Haiti - Republique d'Haiti, VISION 21 Vision globale et strategies pour Haiti
- Jamaica – VISION 21 Jamaica National Report , Water and Sanitation
- Guyana - Guyana VISION 21, Building a shared Vision for Water Supply and Sanitation

CEECS and NIS

- Bulgaria – Global Vision and Strategy for Water Supply and Sanitation 2000- 2025
 - Kyrgyzstan - Report of the Consultation Meetings on VISION 21 in the Kyrgyz Republic
- Industrialised countries
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- * World Water Council *Long Term Vision for Water, Life and the Environment (project document)*, (1998)
- * World Water Council *World Water Council 2nd World Water Forum and Ministerial Conference (project document)* (1998)
- * World Water Council *Work Plan and Status Report* (1998)
- * World Water Council *Suggested Framework for Regional Consultations* (1998)
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- * International Conference on Water and the Environment, Dublin, 1992 *The Dublin Statement* (1992)
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Milestones of Consensus

During the International Water and sanitation Decade (1981-1990) much has been learned in terms of both successes and failures in approach. These lessons of the past will form an important input into VISION 21 implementation.

Recent conferences have produced an additional wealth of information on the lessons learned, the changes required, the strategies to be adopted, and the actions to be undertaken:

* An early milestone was the New Delhi Declaration of 1990. This was the 1990's call for renewed political commitment combined with new communication and mobilization efforts. Together, these could provide the "fundamental new approaches" without which broad-scale deprivation could turn into an unmanageable crisis. A two-pronged approach (reduction in the cost of services through more efficient and lower-cost technologies, mobilization of additional finances) was also proposed. Both would support the challenge of equity: 'Some for all, rather than more for some'. Guiding principles recommended were protection of the environment and health through integrated management approaches, institutional reforms in their support, community management beyond mere participation through capacity building (particularly of women) and the strengthening of participatory institutions, and sound financial practices toward increased efficiency and mobilization of resources.

On the occasion of this conference the Collaborative Council in its present form was created.

* Two years later, in 1992, new approaches were again called for when the International Conference on Water and the Environment met in Dublin to consider the development and management of freshwater resources. The interdependence of all peoples and of their place in the natural world would need new levels of commitment at every level of governance and society. These in turn required investments, awareness, legislative and institutional changes, technology development, and building the capacities of human resources. The pivotal role of women as providers and users of water was seen to demand positive policies to address their special needs, as well as to equip and empower women in the sector's decision-making and implementation.

* Agenda 21 soon emerged from the Earth Summit in Rio de Janeiro, also in 1992, literally a watershed event. Rio firmly established water and sanitation as critical elements in human and economic development. National targets were suggested for reducing waterborne diseases and for meeting urban/rural water and sanitation needs, while protecting the freshwater needs of future generations as a guiding principle.

* The aim of the 1994 Ministerial Conference in Noordwijk was to ensure a follow-up of the freshwater recommendations set forth in Agenda 21. Reiterating their support for the guiding principles of New Delhi, the Ministers stressed that "governments do not solve problems, people do". Five actions were emphasized: involving stakeholders more strongly in partnerships for decision-making, integrating water resource management into planning for other key sectors, strengthening the institutions responsible for service provision, mobilizing financial resources for the future and improving the quality of international support for the sector.

* In 1997 the European Union called for a programme of action toward the needs of the next century, reaffirming the recognition of safe drinking water and sanitation as fundamental rights which are both economic and social. A conceptual framework focused on the quantity of quality water required to meet basic human needs of health and sanitation, as well as goals of equity and efficiency.

In the same year the Collaborative Council decided to undertake VISION 21.

* In 1998, the International Conference on Water and Sustainable Development in Paris called upon the international community, public authorities at every level and civil society to give priority to providing access for all to safe drinking water and sanitation. It emphasized the need for continuous political commitment and broadbased public support to ensure the achievement of sustainable development, management and protection, and equitable use of freshwater resources and the importance of civil society to support this commitment.

The establishment of the World Water Council and the World Water Vision initiative were also announced during the conference.

Source: "Vision 21: Water, Sanitation and Global Well-being" of WSS Collaborative Council

