FRESH WATER TO ERADICATE POVERTY
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NORWEGIAN CHURCH AID
UNDERSTANDING THE ISSUES
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WATER FOR THE LIFE OF THE POOR

By Secretary General Atle Sommerfeldt

We all know that fresh water is the precondition for all life – also human life. This implies that water - or the lack of it - is a major cause of death. Water is a threat in insufficient quantities, when it is of poor quality and when it becomes an uncontrollable force in the form of floods and storms.

In the global metropolis, our human community, fresh water for all human beings and to sustain the ecosystem is becoming increasingly scarce and costly. As always, wealthy people and nations can face this challenge, but the situation is becoming critical for the poor. For Norwegian Church Aid, an organisation that has based its strategies on ethical norms derived from the Christian faith, this is intolerable. We are therefore committed to participating in the struggle, together with the poor, to secure acceptable living conditions for people in need. Of necessity, this implies participating in the struggle for clean water.

UN Millennium Development Goal (MDG) 7 is: “By 2005 to reduce by half the proportion of people without sustainable access to safe water and people with no access to basic sanitation”.

Today more than one billion people have no access to clean drinking water and twice as many live without access to safe sanitation. These are mainly poor people living in rural areas and those in marginal urban or peri-urban areas. The challenge of reaching them all with adequate and quality coverage is immense. Poorer countries, where the majority of the water-poor lives, will face difficulties in providing access to water and sanitation – particularly if they are constrained by debt. Both fresh water and safe sanitation are recognised by the international community as key factors in poverty eradication and sustainable social and economic growth. Water is inextricably linked to health, agriculture, energy and biodiversity, just as sanitation is linked to good health and human survival.

Access to fresh water is essential for all human life and must therefore be seen as the most fundamental of all human rights. Without water, all other rights become meaningless. Rights are not for sale and water must not be regarded as a marketable commodity. The understanding of water as a basic human right is important for all people, but even more so for the poor. Everybody consumes water because it is life’s
necessity. The right to water implies, therefore, the provision of clean and affordable water to all. On this basis, the poor can demand that political authorities fulfil their duty to secure this right to the poor. The commitment of the political leadership to do this is the key measure of whether they are fulfilling their duties as leaders. Securing the right to clean and affordable water is not only the duty of national leadership, but also of the international community. The MDGs express acceptance by the international community of this responsibility. Work to follow up the achievement of these Goals is however far too weak and badly focused. The water goal is a precondition for all other goals and must therefore be given top priority.

For more than four decades, water has been a priority issue for Norwegian Church Aid and our partners. Our main challenge has been to work for the right of all people to clean drinking water and secure their dignity through safe sanitation. To be able to reach this aim, NCA and partners have been supporting efforts by communities and local governments in many developing countries.

The struggle of poor people for fresh and affordable water is a daily struggle, and one that is often carried out by women. The struggle is local and solutions must therefore be rooted in the local communities where poor people live. The strategy of Norwegian Church Aid is to build and expand upon local initiatives and solutions. But we have to work on the political conditions for water management at the same time, on both national and global levels. Water politics must also be brought into the spotlight both nationally and internationally. If this does not happen, water for the poor will never be a reality.

This booklet tries to give an overview of contemporary water political issues and gives a roadmap for the participation of civil society and religious organisations in the struggle for fresh water for the poor.

Norwegian Church Aid fights for water for local communities, in emergencies and on the national and global political stage. We experience on a daily basis how important access to clean water is for human life. This booklet will hopefully contribute to the much-needed global movement for water for all.
1. INTRODUCTION

Affordable freshwater supply is essential for survival. However, most individuals and communities do not have access to this essential commodity – fresh water. The level of poverty is determined by the degree of difficulty accessing freshwater supply. In the endeavour to meet Millennium Development Goals, freshwater supply should be a top priority, because without it poverty cannot be eradicated or alleviated. Sadly, freshwater supply is not a priority of the rich countries in their development agendas for the poor countries. Yet it is the most important indicator of destitution. Poor people may survive a long time without fuel, shelter, and clothing, but can only survive a few days without fresh water. Therefore, access to freshwater supply should be placed at the top of the development agenda, if poverty is to be eradicated as intended in the Millennium Development Goals.

Since the 1960s, there has been international consensus that in order to speed up economic development among the poorest nations and communities, especially in Africa and the Pacific, it is necessary for affluent OECD nations to allocate at least 1% of GDP to assuring access to freshwater supply in poor nations. The time has come for OECD members to honour this commitment. Further, it is feasible to convert the external debt of the poor nations into a Water Fund to facilitate access to fresh water for the poorest communities. This is an effective strategy towards the alleviation of poverty, consistent with the Millennium Development Goals.

What does it mean to be destitute? Elizabeth Morgan1 describes a life of destitution. If one is destitute, one would most likely be:

- illiterate, or semi-literate
- a landless labourer in a rural area
- a jobless, homeless squatter in an informal settlement in a town or city
- unreachable by decent roads
- without the luxury of television and radio
- of destitute parents
- working long hours
- malnourished and less productive at work
- spending four-fifths of income on food
- eating a very basic, unsatisfying diet
- spending at least six hours daily to obtain water clean enough to wash, drink, and prepare food
- having a life expectancy twenty-four years shorter than someone living in an industrialised nation
- a member of a community in which the majority are young children
- watching siblings die from high infant-mortality rates
- mentally and physically impaired due to malnourishment
- lacking resistance to simple diseases such as measles, diarrhoea, and infections from cuts and scratches
- unable to learn at school due to listlessness and apathy caused by malnutrition and debilitating diseases
- permanently learning impaired due to malnutrition as an infant
- living in a country with a high degree of inequality between rich and poor
- a member of a minority group
- extremely vulnerable
- from a family which is prosperous enough one year to eat relatively well and perhaps to purchase some agricultural implements, but unable to do the same year after year due to droughts, floods, high food prices, and epidemics
- lacking social services during crises, epidemics, disasters and emergencies
- suffering from a high degree of insecurity
- unable to plan against risks due to the precariousness of one’s existence

Each of the points in this long list describing how the destitute live could be the subject of a book. In the following pages we shall focus on the problem of access to freshwater supply, which is one of the most serious problems of destitution. Below are some typical contexts of destitution, where insuf-

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Sufficient freshwater supply greatly reduces the enjoyment of life at both individual and community levels:

- During the dry season a nomadic family in the Rift Valley Province of East Africa has to walk for days to reach a shallow well for fresh water. The livestock has to be grazed far and wide, because the grass is dry and scanty.
- A poor family on the mountain slopes of North India has to walk for many hours to obtain fresh water for domestic use.
- A poor family in the informal settlements of Lima, Peru, has to buy fresh water at great cost, because there is no water supply in the neighbourhood.
- The water from a borehole drilled to serve a poor community became salty shortly after commissioning. Despite a massive investment, the water could not be used. The women and children of that community still have to walk long distances every day to get water from a seasonal spring.
- Canals built in Northern Tanzania during the colonial period have continued to provide water for domestic use and irrigation to thousands of peasants in the region. As a result of these canals, the people in the region have a regular supply of vegetables, legumes and cereals.
- A poor community in Orissa, India organised itself to make a dam to provide water for domestic use, irrigation and hydroelectric generation. Now the community is self-sufficient in food, water and energy.

In this issue, we shall be guided by the following ten principles:

- Fresh water is the most important resource for sustainable livelihood.
- Access to affordable freshwater supply is a human right.
- Campaigns for human rights must necessarily include access to freshwater supply.
- Destitution is directly related to lack of access to freshwater supply. Therefore, to eradicate destitution it is essential to plan for all communities in all habitats to have access to freshwater supply.
- Water supply infrastructure determines the level of economic development.
- To eradicate poverty, priority must be given to freshwater supply for the most vulnerable communities.
- Destitute nations will need concerted international support to achieve the goal of supplying fresh water to their societies.
- Faith-based organisations have a unique role in the achievement of this goal.
- Privatisation of freshwater supplies restricts access for the majority of poor people.
- The principle of cost-reduction, cost-recovery, and cost recycling (3CR).

In considering each of these principles we shall keep in mind the following:

- The water crisis
- Basic facts
- Basic values
- Basic norms and attitudes
- Theological considerations
- Basic challenges
- Programme of action
- The role of Norwegian Church Aid
- Points for discussion on water sufficiency

2. WATER AND LIFE

It is a basic fact that fresh water is a necessity for life. Planet Earth is inhabitable because there is fresh water on its surface. This resource, however, is very scarce and unevenly distributed. Some of the fresh water is in the atmosphere as vapour. Some is in underground aquifers. Much of it is in the polar ice caps and on frozen mountaintops. The rest is in rivers and inland lakes. Very little of this fresh water is easily and readily available for direct human use. A careful study of the distribution of the world’s population shows that human settlements are concentrated within the zones where fresh water is plentiful. Population density is lower the farther one moves from these zones. Through technology human beings in some places have tried and succeeded in extracting, and also distributing fresh water for domestic, agricultural, industrial and recreational uses. The majority of the world’s population, however, remains without affordable access to
freshwater supply. This imbalance of access is partly the cause, and partly the result of economic disparities in the world. The peoples, governments and institutions that have power and wealth tend to monopolise access to fresh water, often at the expense of the powerless and the poorest. The poor and powerless are often unable to assert or defend their water rights. Following are two interesting examples:

(I.) In 1929, a treaty was formulated and enacted by the British Imperial authorities, guaranteeing Egypt access to the waters of the Nile River, which originates in East Africa, thousands of miles away. All the territories then under British Colonial subjugation, from which the Nile River gets its water, were required to sign the treaty. According to the provisions of the treaty, countries upstream from Egypt could not draw water from either the Nile or from the freshwater lakes that stabilise its flow. Besides Egypt, the other signatories of the treaty were: Sudan, Ethiopia, Eritrea, Kenya, Uganda, and Tanzania. Recent initiatives to review the treaty have been met with reluctance and resistance even though no country in the Nile Catchment’s area needs the waters of the Nile any more than others. Reinforcement of the treaty is an issue of potential conflict in eastern and northern Africa. There are efforts to re-negotiate the terms of the treaty, so that all interested parties can be adequately provided for. It is ridiculous for countries in eastern Africa to implement integrated water management policies for the primary benefit of a distant country, protected by a colonial treaty formulated and endorsed without the representative leaders of the people adversely affected by the treaty.

(II.) During the 1970s, the Cabora Basa Dam was built along the Zambezi River, to serve South Africa and Mozambique during the prolonged colonial rule in those countries. The other countries through which the Zambezi flows were neither consulted nor compensated. They could not resist, owing to the political and economic might and clout of South Africa at the time. Despite UN sanctions, the World Bank and IMF provided funds for development projects in South Africa and Mozambique. The benefits accruing from that facility gave South Africa a technological advantage over neighbouring countries. Today, there are efforts to redress this imbalance through redistribution of water and electricity in southern Africa, with South Africa as the hub. But neighbouring countries will have to pay, belatedly, for investments that were done several decades ago.

Many other examples can be listed all over the world to illustrate the necessity for cooperation in this matter. From an ethical perspective, it is important to ask whether political and economic influence should be exerted by any individual, community, nation or corporation to deny others the right of access to freshwater supply and other essential natural resources. The Christian faith and other religious traditions forbid such selfish and greedy exertion of political and economic power. Access to fresh water, as a means to sustainable livelihood, should not be denied anyone. The challenge is how to organise nations and communities in such a sustainable way that everyone has access to fresh water.

3. ACCESS TO FRESH WATER AS A PRECONDITION FOR HUMAN RIGHTS

In the contemporary international discussions on human rights the focus has been mainly on political and social domains. The emphasis has been on the rights of individuals to life, liberty and the pursuit of happiness. However, life cannot be sustained without the essential conditions and resources that make life possible. Access to freshwater supply is one of them. Viewed in this way, fresh water is a basic precondition for sustainable livelihood. It is contradictory to campaign for human rights among communities living under conditions in which survival is always at risk. While the freedoms of expression, association and belief are important, the basic right of access to the means of livelihood is even more important. Guaranteeing this accessibility for the majority of the world’s population – particularly in Africa, Asia, South America and Oceania – is the greatest challenge in the twenty-first century.

Various cultural and religious traditions take it for granted that nobody should be denied the basic essentials of life,
irrespective of gender, age or social status. A thirsty person should be given water to drink by those who have some to spare. A hungry person should be given some food to eat by those who have some. Under the norms of Global Capitalism, these basic needs are the frontiers of corporate growth for the service industries. From the perspective of Global Capitalism, hunger and thirst are opportunities for corporations to make huge profits. From a Christian ethical perspective, these should be challenges for social service rather than entry points for exploitation of the poor. The following are illustrations of this point:

Prior to the industrialisation of Europe, springs, rivers and streams were sources of fresh water for the majority of peasants. Homes were built near these sources of fresh water. Owing to rapid industrialisation and urbanisation, most natural sources of fresh water have become polluted. Consequently, the supply of fresh water has become a massive industry. It is risky these days to drink water from the taps at home or in hotels. Instead, people are advised to buy bottled water for drinking. The cost of bottled water competes with the price of automotive fuels. This is lamentable, because fresh water, as a necessity for life, should not be a commodity for profiteering.

The privatisation of freshwater supply and sanitation services is one of the most controversial issues in international deliberations today. The supporters of privatisation view these services as opportunities for expansion of Global Capitalism. They argue that it is impossible to supply fresh water to the majority of people throughout the world without private investment. Wherever privatisation becomes the norm, service to the destitute and vulnerable sectors of a population is left to charities. Critics of privatisation argue that access to freshwater supply should not be tendered to private corporations, because the poorest individuals and communities will suffer most in the process. Charity, which is discretionary, cannot guarantee that the poor will be served. In practice, only those who can afford to pay will have access. The destitute will be at the mercy of the affluent.

While it is necessary to develop and sustain efficient and effective water and sanitation services, there is no guarantee that privatisation is the best means of ensuring efficiency and effectiveness. Privatisation is driven primarily by the motive to maximise profits. Business principles require that profits should be made without any investment if possible, and with minimal investment if necessary. If profits are to be re-invested, the purpose should be for maximisation of profits later, not for humanitarian service. There is great risk, therefore, that privatisation of water and sanitation services will erode, rather than promote human rights. If vulnerable communities campaign against privatisation of their basic means of livelihood, private companies will resist and undermine such campaigns. Yet some of those corporations entering the water sector are the same as the ones that are involved in extractive industries, which undermine the survival of vulnerable communities across the entire world. The commitment to the promotion of human rights is contradicted by the clamour for privatisation of freshwater supply and sanitation services. It is difficult to anticipate how, in the future, campaigns for promotion of human rights will be sustained in contexts where private corporations, especially transnational ones, control access to and management of freshwater supplies. In the same way that access to essential minerals has been monopolised by a few corporations, so will privatisation of freshwater and sanitation services eventually fall under the exclusive control of a few powerful companies. If that happens, the destitute will have no chance of survival. It is this concern that makes access to fresh water a priority in applied Christian Ethics, especially in contemporary Africa, Asia, South America and Oceania.

4. HUMAN RIGHTS AND CAMPAIGNS FOR ACCESS TO FRESHWATER SUPPLY

It is essential to link the promotion of human rights to the campaigns for access to freshwater supply. This is because human rights cannot be fully enjoyed by people without access to fresh water and adequate sanitation. Consider the following illustrations:

During the apartheid regime in South Africa, the majority African population (87%) was crowded into the Bantustans [home-lands] located in 13% of marginal land, where access to fresh
water was almost impossible. In the meantime, the minority Afrikaners (13%) occupied most of the fertile land (87%). Under such conditions, the struggle against apartheid was not only a struggle for political and social rights. Rather, the struggle was for the overhaul of the entire system, including the exploitative and oppressive economic edifice. It would be inconceivable to dismantle apartheid without dismantling the inhuman economy that had condemned Africans to gradual annihilation, and guaranteed the Afrikaners a future of affluence and opulence. The dramatic change that came to South Africa in 1994 has given hope to many people the world over, that exploitative systems can be changed. It is not a matter of whether this will happen, but of when. This hope sustains the various groups that continue to campaign against exploitation and oppression in various countries and regions.

Campaigns for human rights among the inhabitants of informal settlements in cities all over the world include struggles for access to basic services, including access to freshwater supply and sanitation. The main argument against provision of such services is that these inhabitants are ‘squatters’ on land they do not legally own or occupy. Very often it is public land under government oversight. Sometimes it is private land that is illegally trespassed. Such services might legitimise occupation, and interfere with the city master plans. The argument of the inhabitants of these informal settlements is that they deserve essential services as any other inhabitants of the municipality. To appreciate the complexity of this problem it is worthwhile to explore the factors that contribute to the rural-urban influx.

Very often, young people leave their rural homes because life in the rural areas is intolerable – without basic services, employment or recreation. The school curriculum inculcates values favouring urban life and discrediting rural habitation. The mass media encourage this bias, creating the impression that it is better to live in urban, rather than in rural areas. Advertising also reinforces urban consumer tastes and values. Consequently, young people in rural areas grow up aspiring to flee from the chores of rural life, hoping to settle in urban areas where they have been made to believe that life is more comfortable. When they leave their rural homes for urban centres, they soon discover that life is not as promised by schooling, the media and corporate advertising. But it is too late for them to return. Even if they returned, they would not be welcome, unless and until awareness education campaign is implemented. The provision of basic services in rural areas, including fresh water and sanitation, and a school curriculum that cherishes rural life, will greatly reduce the influx of young people to urban centres.

Cities will continue to grow because of industrialisation and commercialisation of national economies. However, the rate of urban population growth will be reduced if rural life is given a higher value than at present. With regard to the rapid urbanisation of Africa, Asia and South America, importation of subsidised agricultural products from Europe and North America renders unprofitable any small-scale farms that try to compete with subsidised imports. The collapse of small-scale farms contributes greatly towards the urban influx. The policy imposed on the poor countries to remove agricultural subsidies and receive subsidised imports is both unethical and exploitative. In the long term, it will fail.

5. RELATIONSHIP BETWEEN DESTITUTION AND FRESHWATER SUPPLY

A general survey of vulnerable communities throughout the world shows that lack of access to freshwater supply and sanitation is not only an indicator, but is very often the cause of destitution. Population migration within nations is very often directly the result of flight from deteriorating conditions in the habitat of those areas from which the people flee. The destination of these migrations is often the urban centres, big and small. This flight puts pressure on the municipal authorities, which do not have the capacity to absorb large influxes of migrants without government funding and without the possibility of levying adequate taxes to finance the services needed. If the campaign to reduce poverty is to succeed, urgent attention must be given to the provision of basic services, including sustainable freshwater supply, in all areas of every country. The implication is that each country will have to assess the optimum holding capacity of each area and region, and plan accordingly. Semi-arid
areas can hold relatively high populations if the problem of freshwater supply can be overcome.

For example, in eastern Kenya, the districts of Machakos and Kitui are in a semi-arid, fragile habitat, which is hardly suitable for ranching and nomadic existence. During the past fifty years, the people of this area have invested time, labour and creativity in the harvesting of rainwater and improvement of their small farms. As a result of these initiatives, tens of thousands of ferro-cement water tanks have been constructed for harvesting rainwater from the corrugated iron roofs of domestic houses. At the same time, thousands of sub-surface dams have been constructed to harvest rainwater runoff along seasonal river valleys. Tens of thousands of kilometres of terraces have been dug on small farms to reduce soil erosion and retain moisture. Through improved agricultural methods, crop and livestock yields have improved significantly. Local leaders have directed these initiatives with deep commitment and foresight. The local communities have applied their traditional wisdom and moral values to inculcate a sense of ownership in their projects. The cumulative result of these achievements is that these two districts now support a much higher population density than would have been possible without improvement of the local conditions. This moving story is documented in the book *More People Less Erosion* (London: Overseas Development Institute, 1994). The book: . . . explores the relationship between increasing population density, productivity and environmental degradation, through a case study of Machakos District, in south-east Kenya, over the period 1930-1990. It seeks to measure the changes that have taken place, to interpret them in the context of a development theory, and to derive policy lessons that may have relevance elsewhere. Its principal findings are that population increase is compatible with environmental recovery from degradation provided that market developments make farming profitable. There has been an approximate threefold increase in the value of output per capita, and a tenfold increase in value of output per hectare. Population growth with new market opportunities has stimulated investment and innovation, but in a semi-arid area some of the necessary capital has had to be generated outside agriculture [p. 13].

The authors, with ample evidence, conclude that rapid population growth need not lead to environmental degradation and destitution. On the contrary, with appropriate incentives and encouragement people can take responsibility for improving their own environment and increasing its productivity. Rapid population growth, which resulted from improvements in diet and health care, contributed in turn to the expansion of local markets and increased the challenges for innovation and adaptation. It is in the interest of local communities to invest in the improvement of their environment, provided that the investment will make economic sense in both the short and the long term. There are many examples in other countries like the one above in Kenya, and they disprove the arguments of advisors who bluntly view rapid population growth as antithetical to economic development and modernisation.

In another report, a leader of self-help community groups in eastern Kenya, Joshua Mukusya, confirms that rural communities are willing to invest their time, labour and even money on projects that benefit them directly through access to water, improved agricultural yields, more effective health care, and so on. The Utooni Self-Help Community Group in Kola, eastern Kenya, has the following maxim as its motto: “Without Vision We Perish”. Guided by this motto, this community of 135 families has contributed with labour for more than twenty years, at the rate of one day per week, worth more than US$150,000. This investment has resulted in the construction of 130 sub-surface dams, 8,500 domestic water tanks, 15 kilometres of terraces for soil conservation, and in the planting of 50,000 trees. These projects have improved the quality of life of the people in this fragile environment, and helped to slow urban migration. The experience has been replicated many times in several countries, and provides a model of social and economic development that is worthy of wide promotion and support.

6. WATER SUPPLY AND LEVELS OF ECONOMIC DEVELOPMENT

The case study cited above suggests that local communities can turn a relatively hostile environment into a hospitable habitat. It is worthwhile to develop this insight further. Subsistence
agricultural production can sustain local communities only to the extent that they grow, consume and exchange their products mainly within their local markets and environs. Surplus agricultural production can be sold in national and international markets. Such a leap in agriculture, from subsistence farming to agribusiness, will require more investment in agricultural inputs, processing, transportation and marketing. This point is illustrated by a case study from southern Africa. A daytime flight from Cairo to Cape Town reveals the difference that investment makes in agriculture. Elaborately planned plantations are clearly visible from high altitudes. Egypt has also invested heavily in the irrigation of the Nile Valley north of the Aswan Dam. This investment has paid dividends. Despite desert conditions in most of Egypt, the country is heavily involved in the growing of such crops as cotton, wheat, rice and sugar. Some of these products are even exported to countries that have better climatic and soil conditions than Egypt. One sees a similar view when flying south from Libya’s Mediterranean coast. In the middle of the Libyan Desert huge irrigation projects can be seen, with a good all-weather road to link farms with coastal cities.

Likewise, for many decades South Africa has invested heavily in dams to store water for domestic use, irrigation and electricity. Next to each dam are impressive plantations. Despite having an area with a fragile environment bordering the Kalahari Desert, South Africa is a net exporter of agricultural products. In capital investment for agricultural production, the rest of Africa is far behind Egypt and South Africa. Both countries have much greater economic output than other African nations. Thus it is essential to encourage and facilitate the poor and vulnerable communities to make the best of their habitat, and those with the necessary capital should invest in viable and sustainable agricultural production.

The challenge in policy and planning is to ensure that the wealthy do not enrich themselves at the expense of the poor, because this risks the collapse of the national economy. This happened in the former Soviet Union. Large-scale agricultural production became more a liability than an asset owing to net wastage and low efficiency. In Europe and North America mechanised farming drove small farmers out of business. The wastage and inefficiency of large-scale farming is subsidised by governments and credit financing that small-scale farmers cannot afford. This trend has extended to Africa, Asia and elsewhere. Peasant farmers are driven out of business by the dumping of subsidised agricultural products from OECD countries.

Small-scale projects such as the one described above, are more likely to raise the quality of sustainable livelihoods than huge projects. For example, many small-scale hydroelectric projects could be financed for the cost of one huge project. Furthermore, transmission costs would be reduced, and management brought closer to end-user communities. Policy makers at the community level should also consider diversified clean energy generation, including solar and wind power.

7. RELIABLE FRESHWATER SUPPLY FOR VULNERABLE COMMUNITIES

The examples in preceding sections confirm that there is a direct relationship between poverty and lack of reliable freshwater supply. Vulnerable communities lacking access to freshwater supply will remain poor because they will spend too much time collecting fresh water for basic survival! Providing such communities with access to freshwater supply is the first step towards meeting the Millennium Development Goals by 2015. Freshwater supply can be guaranteed through the following strategies:

a) Community-based projects should construct weirs across dry valleys and seasonal rivers to harvest rainwater. Such projects are best organised during the dry season, so that the dams are ready before the rains arrive. Several dams built in series will provide enough freshwater between rainy seasons for domestic use, and later for irrigation. In the future, such investment will support industrial development.

b) Community-based projects should construct earth dams across rural streams to harvest rainwater runoff. This
approach differs from constructing conventional dams because it ensures that communities downstream are not denied fresh water. Community participation ensures local ownership and management, and facilitates long-term maintenance.

c) Community-based projects should construct domestic reservoirs for rainwater harvesting from domestic roofs. Thereby, each family collects enough water to last it a whole season. A combination of this approach with construction of community dams ensures long-term community-based freshwater supply. The local community functions as project owner and manager, thus reducing production costs. Any charges to recover costs can be recycled to improve the service.

d) Community-based projects should construct canals where water is plentiful, with head-dams to ensure that canals do not deprive rivers of water. This approach will ensure that local communities can produce food for both domestic use and sale. Rice paddies irrigated by canals are an indication of this approach’s viability. Canals for small communities are much cheaper to construct, manage and maintain than piped water supply systems. Peasants are responsible for maintenance of the canal section on their land. In return, they have water rights, subject to the community’s rules, values and norms.

Constructing small dams nearer to where consumers live can reduce distribution costs and wastage. This improves local habitats by raising the water table, thereby increasing crop yields and local precipitation. The resulting microclimate will contribute considerably as an adaptation strategy in response to global warming. Dam construction closer to user communities also yields benefits in management and maintenance of the supply systems. Experience in Kenya confirms that in many rural communities piped freshwater supply is rendered unreliable by frequent failures in the supply system. When leakage occurs, a long time passes between reporting and repairing the damage, during which the whole zone suffers.

8. THE ROLE OF AFFLUENT NATIONS AND MULTILATERAL AGENCIES

Affluent nations should consider provision of freshwater supply not as charity, but rather as their responsibility and part of their commitment towards fulfilment of the Millennium Development goals. While multilateral and bilateral support are important, direct support by local community initiatives for freshwater supply is needed. Such support is likely to be more effective in alleviating poverty than expensive, large-scale projects that are difficult to manage.

Since the 1970s, there has been international consensus that rich OECD nations should contribute at least 1% of GDP towards the economic development of poor nations. This consensus is based on the fact that the affluence of the rich is both directly and indirectly related to the deprivation of the poor and destitute. The more the affluent accumulate, the greater the gap between rich and poor. This disparity is well illustrated in the UNDP Annual Human Development Reports.

Scandinavian countries have the smallest gap between their rich and poor citizens. If the rich-poor gap is to be reduced globally, affluent nations must allocate resources to enable the most destitute, vulnerable communities – especially in Africa and the Pacific – to develop local projects to assure basic necessities such as access to fresh water for domestic use and later, for irrigation.

9. THE ROLE OF FAITH-BASED ORGANISATIONS

Faith-based organisations have the advantage of being close to local communities where the need for basic social services is greatest. Thus, in implementing policies to help the poor, faith-based organisations have the highest potential for success. Following are some of the reasons why faith-based organisations enjoy the trust and confidence of local communities:

- They have institutions, which outlive individuals and officials.
- They are founded on ethical values and principles, rather than on vested interests of individuals.
• They have administrative structures independent of both the public and the private sector.
• They have aspirations that transcend political and economic vested interests.
• They have global networks that can mobilise financial and human resources.
• They have established channels of communication and negotiation with governments.
• They have practical relationships with the private sector through foundations, charities and trusts.

10. COMMERCIALISATION OF WATER AND OTHER SOCIAL SERVICES

The trend towards commercialisation of water and other basic social services is certainly in conflict with the commitment to reduce poverty. While corporations will reap huge profits, poor individuals and communities with little or no access to clean fresh water will be unable to pay for both the services and the profits expected by the companies. The drive force behind commercialisation is not service, but profit. Promoters of commercialisation maintain that efficiency will improve if water services are privatised. However, available evidence suggests otherwise. In pursuing maximum profits, service companies tend to provide the bare minimum of service. In the corporate sector there is no requirement that profits be reinvested to improve services. Rather, profits are distributed to shareholders. There are better ways of improving efficiency than commercialisation of basic social services such as freshwater supply.

11. COMMERCIALISATION AND PRIVATISATION

A clear distinction should be made between commercialisation and privatisation. It is true that individuals and communities will have greater value for basic social services if they have an interest in the management of those services. Thus a local community - rural or urban - may hold shares in water or energy supplies utility, so that they may participate in the management of that utility. The capital investment will be used to provide the infrastructure, and the service charge will be used to cover the cost of service and the overheads. Should there be an excess of income over expenditure, this will be recycled to improve and expand the service. This approach is the way of the future. The government will be responsible for providing the regulatory framework for such local community-ownership initiatives and the social infrastructure essential for efficient management. For example, qualified personnel should be trained in accordance with government policy for human resources development. However, local communities should be responsible for the managerial norms and practices for the utilities they own. Employees of these utilities should be answerable to the management committees, not to the government bureaucracy that has no direct vested interest in the utility. Private companies, in their corporate social responsibility, may support the initiatives of local communities as they establish such utilities, but they should not be involved in the provision of basic social services (such as water) for profit.

12. COST REDUCTION, COST RECOVERY AND COST RECYCLING (3CR)

The principles of cost reduction, cost recovery and cost recycling make sense in the context of community ownership of basic social services. It is in a local community’s interest to use its investment in water supply as efficiently as possible, ensuring that its investment is cost effective. At the same time, the local community will charge for the services in such a way as to recover costs without over-charging for profit. Revenue earned will be recycled for system maintenance, and for necessary expansion. Where these principles are applied rigorously, the provision of basic services is very efficient.

13. SCALING UP OF SUCCESSFUL COMMUNITY PROJECTS

It is essential to identify successful community initiatives all over the world, and to 'scale them up' through financial and logistical support. Already, there are excellent examples in Kenya, India and Brazil. These initiatives should be made better
known, and given support to expand to the next level, i.e. from
domestic use to irrigation. The lessons learned by local com-
munities should be documented and well understood, to reduce
the wastage of capital resources. By scaling up and diffusing
successful community based technologies, solutions to the
problem of freshwater supply will be greatly enhanced. Rain-
water harvesting technologies are relatively well developed in
Kenya, Brazil, India, and China. Communities involved in these
projects should share their experiences with others.

14. NCA’S FRESHWATER ADVOCACY AGENDA FOR
UNDERSTANDING THE ISSUE

Partners

- Empower local communities to ensure their right of access
to safe water for poor people with emphasis on local
ownership of water and sanitation facilities, particularly
women as they shoulder the major responsibility in
collecting and transporting water.
- Promote water and sanitation as priorities in national
programmes for poverty reduction, and to mainstream
fresh water and sanitation into PRSPs, wherever this is on
their national agenda.
- Strengthen their preparedness for timely and holistic
responses in support of local resources and capacities for
coping with emergencies. To this end core partners should
give priority to water and sanitation emergency prepared-
ness in cooperation to the ACT network and UN-related
interventions.
- Avail their resourcefulness to solve conflicts related to
water at local, national and regional levels.
- Support global ecumenical advocacy towards an interna-
tional legal framework to alleviate the impact of water
shortages and climate change.

Churches and people in Norway

- Churches and church-based organisations in Norway should
communicate to their congregations the challenges raised
by water scarcity and pollution.
- Being aware that developed countries have made stronger
commitment in taking the lead in changing unsustainable
patterns of consumption and production, people in Norway
should promote a sustainable life style, and efficient and
environmentally friendly use of water in agriculture and
industry.
- Should mobilise their resourcefulness to join NCA cam-
paigns and fundraising related to water and sanitation.

The Norwegian Government

- Committed to promote the “UN committee on economic,
social and cultural rights”, that water should be treated
as a social and cultural good and not primarily as an
economic good, and based on this position to oppose any
attempt to include water in GATS/WTO agreements.
- Fresh water being a key to health, education, gender, food,
energy and environment, Norway should reverse its policy
and increase its ODA funding to the water and sanita-
tion sector to a minimum of the OECD average (6%), with
particular focus on IWRM and on strengthening the public
sector to sub-Sahara Africa.

Donor governments

- Should step up their effort towards the achievement of
the 0.7% target of GDP for ODA. The MDG related ODA
commitments must be fulfilled.
- Should give 70% of water and sanitation official develop-
ment assistance to least developed and low-income
countries, particularly sub-Sahara Africa.
- Should support right-based approach and give formal
recognition that water, sanitation and housing are basic
human rights.

Market

- Ensure their active participation in developing sustain-
able water and sanitation for poor communities, and
respect local communities’ and traditional use of water
resources.
• Ensure corporate social responsibility in handling business matters in the area of water and sanitation.
• Transnational corporations should respect transparency, national regulations and the right to water as articulated in the UN Convention on ESC Rights.

The international financial institutions (WB, IMF etc)
• Should not impose water privatisation or cost recovery as a condition for new loans and/or renewal of loans for developing countries. Partial or full privatisation of water services threatens access of water to poor people. Private sector participation is not the solution to the financial gap and must never be imposed as a condition of grants or loans. International financial institutions should, therefore, operate in a transparent and consultative manner where civil society and local administrations participate fully in all decisions.
• Water shall be protected from commoditisation and be kept out of the General Agreement on Trade Services (GATS), the World Trade Organization (WTO) and other multi-lateral and regional trade agreements.

Developing countries
• Governments should protect by law the human right to have access to clean water and safe sanitation to all citizens irrespective of gender, race or creed. National and local governments should have a duty to provide, respect, promote and protect the right for people to have access to affordable fresh water. Therefore, all governments should make public financing a priority for providing safe drinking water to all to meet their basic needs (@ 50 litres per person per day). Above that gradually increasing block tariff structures may be put in place to encourage cost recovery and conservation practices.
• Access to fresh water and safe sanitation is a foundation to sustainable development, environment, economic growth and fundamental to reaching the other MDG targets. This must be prioritised in national programs for poverty reduction, public spending as well as in international development assistance, not only to water and sanitation but also to Integrated Water Resources Management. This includes mainstreaming water and sanitation in PRSP processes. National governments should prioritise water management with crosscutting themes of poverty eradication, protecting the environment, agriculture, gender equality, health and education etc.
• Governments should give political support to demand driven safe sanitation by allocating necessary resources for providing sanitation services, particularly to the rural and slum communities.
• National governments honour their 20-20 commitments (20% ODA and 20% government budget should be spent on social sector activities).
• In their national constitution governments should enshrine the basic role of water for all life, human survival and health, and that water is a public good and not a commodity to be traded, that the regulation, control and management must always remain within the public sector.

Faith-based organisations (FBO) and civil society
• FBO and civil societies, alongside local and national governments, and the local and national private sector should assist in the education, mobilisation and capacity building of communities in the development of sustainable water and sanitation policy, plans and implementation.
• Scale up successful community initiatives, like rainwater harvesting and riverbed sand dams, build on water management and respect community based solutions.
• Ensure the sustainability of water resources, involving local users and women in the decision-making processes and management. Capacity building input is very critical to enable local communities participate and manage local water resources in line with national policies and plans.
15. WATER SUFFICIENCY AND SCARCITY

Access to fresh water is perhaps the most significant indicator of the level of deprivation among individuals, families and communities. The majority of families worldwide have little or no access to fresh water. In recent international forums there have been many deliberations about the growing gap between the affluent and the destitute nations, communities and individuals. The rich are becoming richer, while the poor are becoming poorer. This situation suggests that there is something drastically wrong with the way the global economy is organised and structured. While macro-economic indicators show significant growth per capita in the world’s economy, micro-economic realities reveal increasing destitution, especially in Africa. Most of the poorest countries are in Africa, the region that has suffered the greatest political fragmentation under colonial rule and cold war manipulations. During the 1960s there was much emphasis on the need to eradicate poverty. Now the emphasis is on alleviation rather than eradication. Have we given up on trying to eradicate poverty?

This booklet in the series Understanding the Issues focuses on water sufficiency. Of all the essential requirements for the sustenance of life, water is the most crucial. A person can survive for many days without food, but only for a very short time without water. The purpose of this booklet is to present, for discussion and relevant follow-up, the various aspects of water as a necessity for life, and also for the enhancement of the quality of life.

One indicator of the standard of living is the volume of water used per person per day in a particular sector of society. Today there is much talk about eradication of poverty. But the people involved in this discourse are themselves not poor – they have disposable incomes with which they can purchase goods and services in excess of basic necessities. The poorest people have no time to argue about poverty and its causes. They are busy struggling for survival. Most of them spend many hours daily in search of water. They have to walk many kilometres to distant streams, wells and oases.

Poverty may be defined as the condition of an individual who earns the equivalent of less than one US dollar per day. It can also be defined as the condition of an individual having access to less than 40 litres of clean water per day. The majority of people on earth are in this desperate situation. Facilitating sustainable access to fresh water can be one of the most effective strategies towards the eradication of poverty.

A country achieves water sufficiency when it has access to more than 1,700 cubic metres of water per person per year. There is water stress if the access is between 1,000 cubic metres and 1,700 cubic metres. When a country has access to less than 1,000 cubic metres per person per year, it suffers from water scarcity. The majority of African countries suffer from water scarcity. If poverty is to be eradicated, it is necessary to find ways of achieving water sufficiency worldwide.

Water Scarcity: Below 1,000 m³ per person per year
Water Stress: 1,000 m³ to 1,700 m³ per person per year
Water Sufficiency: Above 1,700 m³ per person per year

Charity cannot eradicate poverty. Usually, charity makes donors complacent and beggars dependent. Private sector aims at maximising profit. It cannot eradicate poverty either. The most effective strategy for eradicating poverty is the removal of obstacles, which hinder people from access to means of livelihood, including land, water and energy. In this booklet we shall discuss water as essential for economic development.

16. THE WATER CRISIS

Many of the wars during the twentieth century were fought over control of access to fossil fuel (petroleum and coal) deposits, and water (waterways and river basins). The unending conflict in the Arabian Peninsula is an example. Another example is Sudan, through which the River Nile passes before it enters Egypt and drains into the Mediterranean Sea. Cross-border and internal conflicts over access to water are likely to increase during the third millennium. The most vulnerable will be those sectors of the population with the lowest purchasing
power. Already, in many countries bottled fresh water is more expensive than petrol. In pre-industrial and pre-urban contexts, denying water to anyone was immoral. If drinking water is more expensive than petrol, its availability to the needy can no longer be guaranteed. The commitment to eradicate poverty is integrally bound with the necessity to improve access to fresh water for domestic and agricultural use.

Because of population increase and the expansion of industrialisation and urbanisation, availability of fresh water has been declining considerably since 1950. The following statistics indicate the trend in the decline of available fresh water, in thousands of cubic metres:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>20.6</td>
<td>16.5</td>
<td>12.7</td>
<td>9.4</td>
</tr>
<tr>
<td>Asia</td>
<td>9.6</td>
<td>7.9</td>
<td>6.1</td>
<td>5.1</td>
</tr>
<tr>
<td>Latin America</td>
<td>105.0</td>
<td>80.2</td>
<td>61.7</td>
<td>48.8</td>
</tr>
<tr>
<td>Europe</td>
<td>5.9</td>
<td>5.4</td>
<td>4.9</td>
<td>4.4</td>
</tr>
<tr>
<td>North America</td>
<td>37.2</td>
<td>30.2</td>
<td>25.2</td>
<td>21.3</td>
</tr>
</tbody>
</table>

There are great disparities within each continent. Most of the people experiencing water scarcity live in Africa. Humankind uses 54% of all accessible renewable fresh water contained in rivers, lakes and shallow underground aquifers. The rising population and expanding industrial activity will raise this extraction to at least 70% by 2025. If the rate of depletion continues at present levels, it might reach 90% by 2035. This prospect is alarming, and shows that lack of water sufficiency is indeed a crisis for humanity. The most vulnerable sectors of societies will be most adversely affected by this crisis. It is for this reason that attention should be focused on the poorest sectors of society in every country. Access to fresh water will determine whether the poor will survive.

Fresh water is scarce. Only 0.008% of the planet’s water is available for human consumption, and is very unevenly distributed. At least 13% of the earth’s renewable supply of fresh water is in Brazil. In many countries, the availability of water is seasonal. In Australia, for example, 65% of runoff occurs from January through March. Because of such seasonal and geographical variations, humans have built 32,000 dams over 15 metres in height around the world. More than 70% of mankind lacks clean water, and an estimated 25,000 people die daily as a result of bad water management. About 40% of mankind depends on water from a neighbouring country. More than 200 river systems are shared by two or more countries, and several international conflicts have arisen from disputes over water. There are more than 2,000 treaties relating to water rights. At least 90% of drinkable water worldwide is groundwater, a source that is increasingly threatened with depletion and contamination. Irrigation accounts for the largest use of fresh water, and much of that is lost through evaporation. With the growth in human populations, agricultural water consumption is expected to continue rising exponentially. In part because of poisoned waterways, 20% of the world’s freshwater fishes are either endangered or extinct, according to the World Resources Institute. It is clearly the responsibility of everyone to conserve fresh water − the most essential element for sustaining life on Planet Earth.

About 70% of the earth’s surface is covered by water, most of which (97%) is salt water. Much of the remaining 3% is found in the polar ice caps and underground reservoirs. Only 1% of available fresh water is in rivers and lakes, and in the vapour circulating during the seasonal rain cycle. Surface fresh water is unevenly distributed.

Human settlement is made possible by microclimates that facilitate seasonal rainfall and hospitable habitats. Regrettably, deforestation and other activities have so degraded the environment in many places that its carrying capacity for future generations has been greatly decreased. Nearly 60% of available fresh water is in the following 9 countries:
**Distribution of available fresh water in the top nine countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Total available</th>
<th>Share of global runoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>5,670</td>
<td>14.18</td>
</tr>
<tr>
<td>Russia</td>
<td>3,904</td>
<td>9.76</td>
</tr>
<tr>
<td>China</td>
<td>2,880</td>
<td>7.20</td>
</tr>
<tr>
<td>Canada</td>
<td>2,850</td>
<td>7.12</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2,530</td>
<td>6.32</td>
</tr>
<tr>
<td>USA</td>
<td>2,478</td>
<td>6.19</td>
</tr>
<tr>
<td>India</td>
<td>1,550</td>
<td>3.87</td>
</tr>
<tr>
<td>Colombia</td>
<td>1,112</td>
<td>2.78</td>
</tr>
<tr>
<td>Congo</td>
<td>1,020</td>
<td>2.55</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23,400</strong></td>
<td><strong>59.97</strong></td>
</tr>
<tr>
<td><strong>All Other Countries</strong></td>
<td><strong>16,006</strong></td>
<td><strong>40.03</strong></td>
</tr>
</tbody>
</table>

Annually, 500,000 cubic metres (0.5 cu. kilometres) of water are lost through evaporation. Most evaporation (85.7%) is from the oceans (428,500 cubic kilometres) while the rest (14.3%) is from land (71,500 cu. kilometres). In the annual seasonal cycle, the same amount returns to the earth’s surface as rain, sleet and snow. More precipitation returns to the land than the amount evaporated from land surfaces (110,300 cubic kilome-

tres). Thus the annual seasonal cycle transfers from oceans to land about 38,800 cubic kilometres of fresh water. This amount returns to the ocean again as runoff. It is important to appreciate this fact, because the achievement of water sufficiency will depend to a large extent on effective and efficient management of this gift of nature to humankind. Quite clearly, one can reduce the amount of evaporation on land, and thereby increase the net gain of fresh water on land. If part of the precipitation on land is retained, more fresh water will be available for agriculture and domestic use. This goal can best be achieved locally, through community-based mobilisation.

According to the below statistics, strategies must be established everywhere to utilise optimally the stable runoff in order to meet mankind’s needs for fresh water. Without such strategies there will be a serious crisis when water use exceeds available stable runoff.

**Distribution of renewable fresh water supplies by continent**

<table>
<thead>
<tr>
<th>Region</th>
<th>Average annual runoff</th>
<th>Share of global runoff</th>
<th>Share of global population</th>
<th>Share of runoff that is stable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cubic Kilometres</td>
<td>Percentage</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>4,225</td>
<td>11</td>
<td>11</td>
<td>45</td>
</tr>
<tr>
<td>Asia</td>
<td>9,865</td>
<td>26</td>
<td>58</td>
<td>30</td>
</tr>
<tr>
<td>Europe</td>
<td>2,129</td>
<td>5</td>
<td>10</td>
<td>43</td>
</tr>
<tr>
<td>North America</td>
<td>5,940</td>
<td>15</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>South America</td>
<td>10,380</td>
<td>27</td>
<td>6</td>
<td>38</td>
</tr>
<tr>
<td>Oceania</td>
<td>1,965</td>
<td>5</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Soviet Union</td>
<td>4,350</td>
<td>11</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td><strong>World</strong></td>
<td><strong>38,874</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>36 (Average)</strong></td>
</tr>
</tbody>
</table>

(State of the World 1985, p. 44)
17. BASIC VALUES

Every religious tradition distinguishes between need and greed, necessity and luxury, essential and incidental undertakings. Economic disparity is the result of policies that make the poor poorer and the rich richer. Charity may alleviate poverty, but it cannot eradicate it. The most effective way of eradicating poverty is to make life’s basic necessities available to the poor. Fresh water is the most essential of these necessities. Mahatma Gandhi taught that there is enough for each person’s needs, but never enough for even one person’s greed.

In all cultural religious traditions water is valued as an essential requirement for sustaining life. In Christianity, water has symbolic value for cleansing and purification. Jesus began his public ministry with baptism at the River Jordan. Lakes, rivers, wells and oases are famous ritual places throughout the Bible. Human settlements have evolved near sustainable sources of adequate fresh water.

Access to fresh water is a useful theme in the promotion of relationships between individuals, communities and even nations. In the discourse on eradication of poverty, it is perhaps much more meaningful and effective to face the challenge of improving access to usable freshwater, as the first step towards sufficiency in basic food and other basic necessities.

18. BASIC NORMS AND ATTITUDES

To reverse the trend of environmental degradation, mankind needs to change its basic norms and attitudes.

The following are some affirmative actions all need to consider:

- Add to nature rather than subtract from nature.
- Work with nature rather than against nature.
- Increase bio-diversity rather than reduce it.
- Small-scale rather than large-scale natural-resource management.
- Micro-level rather than macro-level initiatives in resource management.
- Integrated water resource management rather than fragmented approaches.

Basic Christian teachings, as summarised in the New Testament, emphasise the importance of water as the essential commodity necessary for sustaining life. This insight is echoed many times in the public ministry of Jesus – at baptism, in the call of his disciples, in the miracles, and also in his healing ministry. There is a complementary relationship between water and spirit. Water represents temporal existence, while spirit represents eternity. Water and human history are intertwined. Spiritual reality and religious belief are also inseparable. The inter-relationship between water and spirit provides a strong basis for the involvement of faith communities in the improvement of access to fresh water, especially for the most vulnerable sectors of the population.

Vulnerability results from political policies, economic structures, internal and external displacement, social marginalisation, etc. In practice religion sometimes promotes vulnerability. Religion should protect the weak against the strong, and advocate for fairness where the rich and powerful assert them at the expense of the weak and powerless.

19. BASIC CHALLENGES

Conceptualisation

a) People-Centred Development:
   In his book _Small is Beautiful_, E.F. Schumacher suggested that Development should be about the quality of people’s livelihoods, rather than per capita statistics. Too often, development is defined in terms of growth in GNP and GDP. The most meaningful approach to development is to ensure that each community has access to the basic necessities of life, especially fresh water for domestic and agricultural production.

b) Power and profit versus efficiency and effectiveness

c) Private ownership versus public ownership

d) Large-scale versus Small-scale management
Strategies

a) Rainwater harvesting for domestic use: Training local communities to harvest and manage rainwater.

b) Rainwater harvesting for agricultural use: Training local communities in the construction and management of small dams for agricultural production.

c) Stabilisation of river flow: Training local communities in construction and management of locks along streams and rivers for stabilisation of river flow and also for multiple utilisation including fish farming, irrigation, environmental rehabilitation, bio-diversity enhancement.

d) Conservation of soil moisture: Training local communities in the conservation of soil moisture within smallholdings and homesteads.

e) Conservation of water vapour: Training local communities in conservation and management of water vapour through expansion of plant cover.

Programme of action

- **Focus**: Mobilisation for water sufficiency.

- **Approach**: Church-based community mobilisation for water sufficiency (CMWS).

- **Strategy**: Work through need-based local groups.

- **Mobilisation**: The congregation, parish and the Diocese as the primary units of mobilisation.

- **Priority**: Semi-arid areas, fragile mountain slopes. Begin with eastern Africa as a pilot project, and then proceed to other regions.

Average annual per capita runoff in selected countries. 1983, with projections for 2000.

<table>
<thead>
<tr>
<th>Country</th>
<th>1983 Thousand Cubic Metres</th>
<th>2000 Thousand Cubic Metres</th>
<th>Change Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>110.0</td>
<td>95.1</td>
<td>-14</td>
</tr>
<tr>
<td>Norway</td>
<td>91.7</td>
<td>91.7</td>
<td>0</td>
</tr>
<tr>
<td>Brazil</td>
<td>43.2</td>
<td>30.2</td>
<td>-30</td>
</tr>
<tr>
<td>Venezuela</td>
<td>42.3</td>
<td>26.8</td>
<td>-37</td>
</tr>
<tr>
<td>Sweden</td>
<td>23.4</td>
<td>24.3</td>
<td>+4</td>
</tr>
<tr>
<td>Australia</td>
<td>21.8</td>
<td>18.5</td>
<td>-15</td>
</tr>
<tr>
<td>Soviet Union</td>
<td>16.0</td>
<td>14.1</td>
<td>-12</td>
</tr>
<tr>
<td>USA</td>
<td>10.0</td>
<td>8.8</td>
<td>-12</td>
</tr>
<tr>
<td>Indonesia</td>
<td>9.7</td>
<td>7.6</td>
<td>-22</td>
</tr>
<tr>
<td>Mexico</td>
<td>4.4</td>
<td>2.9</td>
<td>-34</td>
</tr>
<tr>
<td>France</td>
<td>4.3</td>
<td>4.1</td>
<td>-5</td>
</tr>
<tr>
<td>Japan</td>
<td>3.3</td>
<td>3.1</td>
<td>-6</td>
</tr>
<tr>
<td>Nigeria</td>
<td>3.1</td>
<td>1.8</td>
<td>-42</td>
</tr>
<tr>
<td>China</td>
<td>2.8</td>
<td>2.3</td>
<td>-18</td>
</tr>
<tr>
<td>India</td>
<td>2.1</td>
<td>1.6</td>
<td>-24</td>
</tr>
<tr>
<td>Kenya</td>
<td>2.0</td>
<td>1.0</td>
<td>-50</td>
</tr>
<tr>
<td>South Africa</td>
<td>1.9</td>
<td>1.2</td>
<td>-37</td>
</tr>
<tr>
<td>Poland</td>
<td>1.5</td>
<td>1.4</td>
<td>-7</td>
</tr>
<tr>
<td>West Germany</td>
<td>1.4</td>
<td>1.4</td>
<td>0</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>1.3</td>
<td>0.9</td>
<td>-31</td>
</tr>
<tr>
<td>Egypt</td>
<td>0.09</td>
<td>0.06</td>
<td>-33</td>
</tr>
<tr>
<td>World</td>
<td>8.3</td>
<td>6.3</td>
<td>-24</td>
</tr>
</tbody>
</table>

(State of the World 1985, p. 45).
**Method:** On-site training with participation of end-user communities.

**Technology:** User friendly and user sustainable technologies using local materials and local expertise.

Projects will be established according to local needs. It is important for water-sensitive community-based organisations to facilitate discussion among local communities, and to assist them in managing fresh water more efficiently.

**Managerial options**

In recent years there has been much debate about managerial options. The following are worth consideration:

- **Private-sector participation in water management:**

  It has been argued that privatisation of water utilities will improve efficiency. However, experience worldwide shows that private corporations are more interested in profit than in the welfare of the poor and sustainability of natural resources.

- **Direct state management:**

  Water supply and sanitation systems are expensive to build and maintain. Direct state management diverts huge amounts of money to water and sanitation projects, without guaranteeing a return on investment in either the short or long term. The challenge is to ensure state supervision and support while allowing local communities to invest in their own water and sanitation systems.

- **Local community ownership and management:**

  This option is appreciated as a solution to the challenges arising from the fresh water crisis. In rural areas, especially in Africa and Asia, freshwater supplies are under the care of local families and communities.

**The role of Norwegian Church Aid and other partners**

- **Networking:** NCA has the capacity to provide the linkages between various agents of social change.

- **Expertise:** NCA has the capacity to identify experts and consultants to help the needy local communities.

- **Conceptualisation:** NCA has the capacity to facilitate creative and innovative thinking by bringing together those involved in social engineering.

- **Funding:** NCA has the capacity to mobilise funds for implementation of community based fresh water and safe sanitation.
This part contains documents focusing on the prioritisation of water. The documents are from various ecumenical and civil society organisations, from which a consensus is emerging that access to fresh water is the key to alleviation and eventual eradication of poverty, especially in those regions and sectors of population where access to water is a matter of survival rather than a luxury.

Statement of the 5th Global Civil Society to the 8th Special Session of the UNEP Governing Council / Global Ministerial Environment Forum, Jeju Island, South Korea, 28th March 2004.

“Apart from air, water is the only natural resource that the human species cannot do without.”

El-Hadji Guisse, Special Rapporteur on the Right to water, UN Commission on Human Rights.

INTRODUCTION

The United Nations Environment Program (UNEP) facilitated meetings of representatives of civil society organisations (CSOs) from all regions of the world to discuss effective engagement strategies and to gather inputs for this civil society statement to be addressed to the 8th Special Session of the UNEP GC/GMEF on the implementation of sustainable development.

The UNEP regional meeting took place between November and December 2003. It substantially widened UNEP’s outreach to CSOs and afforded civil society the opportunity to network at regional and global levels and to coalesce around the above mentioned in a more coordinated manner.

This paper synthesises inputs from the regional meetings and attempts to describe the civil society position and priorities in relation to implementation of Agenda 21 and JPOI on goals pertaining to water, sanitation and human settlements. This civil society statement to the GC/GMEF is divided into two parts:

- Part One provides the backdrop to the issues, reiterates the goals and sets out the challenges to implementation of global commitments.
- Part Two outlines the overarching principles upon which the civil society position and priorities are based and proposes specific strategies.

Finally, the statement draws a few lessons that have been learned from the experiences of civil society’s engagement with UNEP.

PART ONE

A. GLOBAL WATER AND HUMAN SETTLEMENT CRISIS: THE STARK STATISTICS

The global water crisis has been described as the greatest challenge of the 21st century. The problem is a multifaceted one involving not just water shortage but also wastage, pollution, floods, droughts, poverty, consumption and natural resource management.

The magnitude of the crisis can be judged from the following data:

- 1.1 billion people do not have access to safe drinking water and by 2025 this number will grow to 3 billion.
- 2.4 billion people lack access to adequate sanitation.
- 90% of wastewater discharged into waterways in developing countries is untreated.
- 4 million children die annually from water-related diseases.
- 6000 children die daily from diseases associated with lack of access to safe drinking water and poor hygiene.
- Asia has the world’s dirtiest water and in Europe only about 10% of the main rivers are clean.
- Agriculture uses more than 70% of global water, industry about 20% and domestic consumption about 6%.
- About 50% of the world’s population live in urban areas. By 2015 the number will be nearly 60%.
- By 2020 there may be 120 million new slum dwellers.
10 million people are displaced each year by development projects like dam construction, which cause landlessness, joblessness and homelessness.

B. UNIVERSALLY AGREED TARGETS, GOALS AND COMMITMENTS

The aforementioned issues are not new. Governments, experts and CSOs have been addressing them for decades. The UN declared 2003 International Fresh Water Year. World Water Forums and numerous UN Summits have grappled with these issues, and commitments to dealing with them have been made. The latest set of goals relating to water, sanitation and human settlements are those reaffirmed and contained in the JPOI, and they include:

- By 2015 halve the proportion of people whose income is less than one dollar a day.
- By 2015 halve the proportion of people who suffer from hunger.
- By 2015 halve the proportion of people without access to basic sanitation.
- By 2020 develop integrated water resource management and water efficiency plans.
- Integrate principles of sustainable development into country policies and reverse the losses of environmental resources.
- By 2020 achieve a significant improvement in the lives of at least 100 million slum dwellers.

The implementation of these goals is, however, lagging and they are unlikely to be achieved. The lack of an integrated approach is the main barrier to effective implementation. In addition, civil society has identified a myriad of global developments that have adversely affected the implementation of policies on water, sanitation and human settlements.

C. CHALLENGES TO IMPLEMENTATION

(I.) A vastly altered post-9/11 geo-political scenario, the elusive nature of peace, security and stability, counter-terrorism measures that have undermined human rights, the protracted war in Iraq, the quagmire of reconstruction, weakened multilateralism, unaltered and inequitable global trade and financial architectures have all compounded existing problems and made achievement of internationally agreed development goals, including sustainable development, more elusive than ever.

(II.) The spectre of market-driven globalisation with its mantras of privatisation, deregulation and liberalisation continues unabated and has not shown compassion to the majority of peoples in the world, especially in developing countries.

(III.) These and other barriers to sustainable development continue to exacerbate the crises caused by deforestation, biodiversity loss, land degradation, adverse climate change, global warming and rising sea levels, particularly in the Pacific Islands.

(IV.) Furthermore, trans-border mega development, like big dams and oil and gas exploration, rail and other infrastructure projects, indiscriminate and destructive mining, inappropriate land use, industrial agriculture, urbanisation and eviction schemes have made access to water for the poor an unattainable luxury. Poor water quality, deplorable sanitation and unacceptable human settlements remain the bane of the existence of the world’s marginalised communities.

(V.) Women, youth, children and indigenous peoples bear the brunt of the negative impacts of these and other aspects of globalisation. They lack safety nets to address problems associated with the loss of livelihoods and jobs, particularly among farmers and fishermen.

In the face of these challenges, civil society reiterates its continued commitment to the goal of sustainable development, the achievement of internationally agreed targets and timeframes, and the implementation of water, sanitation and human settlement programs. In Part Two below, civil society outlines its position and priorities based on a set of overarching principles.
PART TWO

A. OVERARCHING PRINCIPLES

State sovereignty over natural resources

Sovereignty remains the core of several legitimate civil society demands for equitable treatment in this unequal world order. The quality and quantity of legal restraints on sovereignty are multiplying. States must firmly retain the responsibility for effective regulation of access to natural resources, including access to water. Sovereignty implies an obligation to protect and fulfil the peoples’ rights to water and sanitation.

In meeting this obligation, states should respect the harmony of eco-systems, biospheres and bioregions, as well as the human rights of all peoples, especially indigenous peoples and local communities, by inter alia ensuring security of legal tenure and equal access to affordable housing for all.

Rights-based, people-centred, values-oriented approaches to development

The rights-based approach should be the basis for action at all levels because access to water is a prerequisite to life itself. The human right to water is indispensable as a basic right and for leading a life of dignity. Therefore water should not be regarded as a commodity to be exploited for profit without due regard to people and the values they cherish.

Water loss amounting to 10% of body mass has serious consequences. Death is caused when water loss reaches 20% of body mass. Water constitutes 58-67% of body weight among healthy adult males and 66-74% among newborns.

Inter-relatedness

The crisis facing humanity is deeply rooted in a complex inter-connected web of economic, social, environmental and cultural factors, belief systems, societal attitudes and perceptions.

Peace, security, non-discrimination and stability are indispensable to sustainable development. There is an urgent need to address these issues cooperatively, based on the principle of common but differentiated responsibility, in order to reduce conflict.

The proliferation of the arms trade and soaring military budgets must be viewed as the most serious impediments to directing domestic and international resources towards sustainable development priorities, the provision of basic services and the attainment of globally agreed commitments.

Water, sanitation and human settlement issues, if not properly addressed, will threaten progress in poverty alleviation, public health, food security and livelihoods. The realisation of many of the Millennium Development Goals (MDGs) is therefore dependent upon, and will in turn affect, how water security policies are implemented.

Gender will be a determining indicator of the success of future policies on water, sanitation, human settlements, and the MDGs.

Education on water issues such as conservation and the need to treat water as a valuable, finite, non-renewable, and vulnerable resource is a prerequisite to improving healthcare and sanitation.

The spiritual dimension of sustainable development must not be neglected in current discourses. Cultural diversity must be respected and the ethical dimensions of issues must remain in the forefront of debate.

B. CIVIL SOCIETY POSITION AND PRIORITIES

Several common themes have emerged from the views and concerns expressed by CSOs, and they also guide civil society’s own participation in the implementation of targets on water, sanitation and human settlements. The main themes are:
(I.) Access to information

Participatory democracy is contingent upon the access to and availability of information. Yet, the irony in this so-called knowledge-based information age is that civil society has enormous difficulty obtaining timely, up-to-date, consistent, relevant and reliable information on which to base its actions and plan implementation strategies. The digital divide is but one aspect of the issue.

The scepticism surrounding empowering civil society, though full disclosure of plans, programs and policies, is still a problem at the national and regional levels. This attitudinal change has to occur soon if civil society is to play a more meaningful role in sustainable development.

(II.) Participation in decision-making

The integration of stakeholders in deliberative processes is vital to delivering development and implementing international and other agreements. The current levels of engagement of civil society can only be characterised as uneven. The UN and its agencies are opening up more space for civil society and experimenting with various modes of engagement. However, regional, national and local levels are lagging far behind, and more must be done to ensure that civil society continues to provide timely inputs to decisions, and partakes in implementation programs.

(III.) Financial resources and capacity building for civil society engagement

Civil society is plagued by the need to compete in the ever-shrinking pool of resources to sustain on-going activities and work on new creative approaches. Donor aid fatigue continues to hamper effective and consistent civil society participation, particularly in issues such as monitoring of water quality and sanitation at grass root levels. Much can be gained from such strategic partnerships, but the donor community must foster such changes without adding to the burden of civil groups.

(IV.) Corporate governance and the privatisation of water

Good governance at all levels is necessary for the proper formulation as well as implementation of policies relating to water, sanitation and human settlements. However, good corporate governance is viewed by civil society as a most fundamental factor to ensuring access of the poor to adequate, safe and affordable water. Recognising the finiteness of water and its special place in sustaining life, civil society will resist increasing trends towards the privatisation of water resources.

The issue of water privatisation has been the subject of great debate, particularly where international financial institutions have subsidised privatisation. The de-link between water privatisation and human rights stems from governments’ poor regulation, oversight and lack of attention to community participation in water management decisions.

The issue of corporate accountability for human rights implementation is therefore crucial. This is particularly important because the $400 billion water industry is controlled by a few large multinationals in France (Vivendi and Suez Lyonnaise), the US (Bechtel) and the UK (Thames Water, Anglia Water and United Utilities). They are all subsidised, receiving export credits from their governments and sharing in the benefits of development loans to the countries in which they do business. There is therefore an urgent need for the IMF, World Bank and Regional Development Banks to incorporate the right to water in their lending policies, credit agreements, structural adjustments, programmes and other development projects.

C. SPECIFIC CIVIL SOCIETY ACTION PROPOSALS ON WATER, SANITATION AND HUMAN SETTLEMENTS

Civil society organisations reiterate their commitment to working with all stakeholders – local communities, governments and international organisations – towards the attainment of objectives relating to water, sanitation and human settlements.

Civil society organisations call upon governments in particular to show leadership to strengthen international and national implementation of goals and commitments on water, sanitation and human settlements including those agreed to at the WSSD in Johannesburg.
Civil society organisations call for the adoption of the following strategies to implement goals on water, sanitation and human settlements:

- Prioritisation of water, sanitation and human settlement issues and securing their integration into poverty reduction strategy papers (PRSPs), MDG Reports and national sustainable development strategies and other national plans.
- Participation of all stakeholders ensuring good communication, coordination and cooperation between government, non-government and private sector activities.
- Adoption of an integrated water resource management (IWRM) approach by applying the eco-system approach (linking the management of eco-systems).
- Development of appropriate links between national, regional and community organisations on water management issues.
- Establishment of sound, fair and equitable legal systems for water resource management and water-related disaster management.
- Promotion of education on water conservation and related issues with the aim of mitigating the adverse effects of floods, droughts and other water-related disasters.
- Improvement of efforts for regional coordination and cooperation on shared river basins.
- Ensuring the equitable delivery of water and sanitation services, especially to the poor.
- Ensuring that there is technology sharing and development on water and sanitation issues, and that water users are engaged in the development of new appropriate technologies.
- Enhancement of the role of local authorities in water management and supporting the participation of local communities and sectors through specially dedicated funding arrangements.
- Full rejection of trade liberalisation of water and waste water services under the WTO GATS and ensuring the harmonisation of trade and environmental agreements within the framework shaped by principles of sustainable development.
- Development of appropriate indicators to reflect the importance of water for sustainable development and poverty eradication and the compilation of good practices relating to water and sanitation.
- Making of sound investments in water conservation, encouraging efficient use of water especially for profit making activities, reducing subsidies and reformulation of market policies that encourage water intensive agriculture and providing for full cost accounting of water resources.
- Promotion of adequate enforcement policies based on the “polluter pays” principle for activities that relate to water, sanitation and human settlements.
- Identification of domestic and donor resources to deliver necessary support for adequate water services, sanitation and human settlements.
- More improvements in the form of land distribution and land ownership to address the human settlements issue.
- Promotion of local production schemes and technologies to improve local economies and allow local communities better control over their local surroundings.
- Address threat of relocation looming over communities by ensuring that foreign corporations are more accountable to and inclusive of local community needs.
As an ecumenical, church-based organisation, Norwegian Church Aid’s vision and mission are both founded in the faith that all human beings are created in God’s image as equals with the same basic rights and obligations. Norwegian Church Aid’s mission is to manifest God’s love in the world by promoting basic rights, challenging indifference, improving living conditions of the poor and participating in strategic alliances which aim to translate God’s love and compassion into practical actions.

Norwegian Church Aid articulates this faith in five core values that provide the foundation for our work: compassion, justice, participation, integrity of creation and peace.