



**Swiss Coalition
of Development
Organizations**

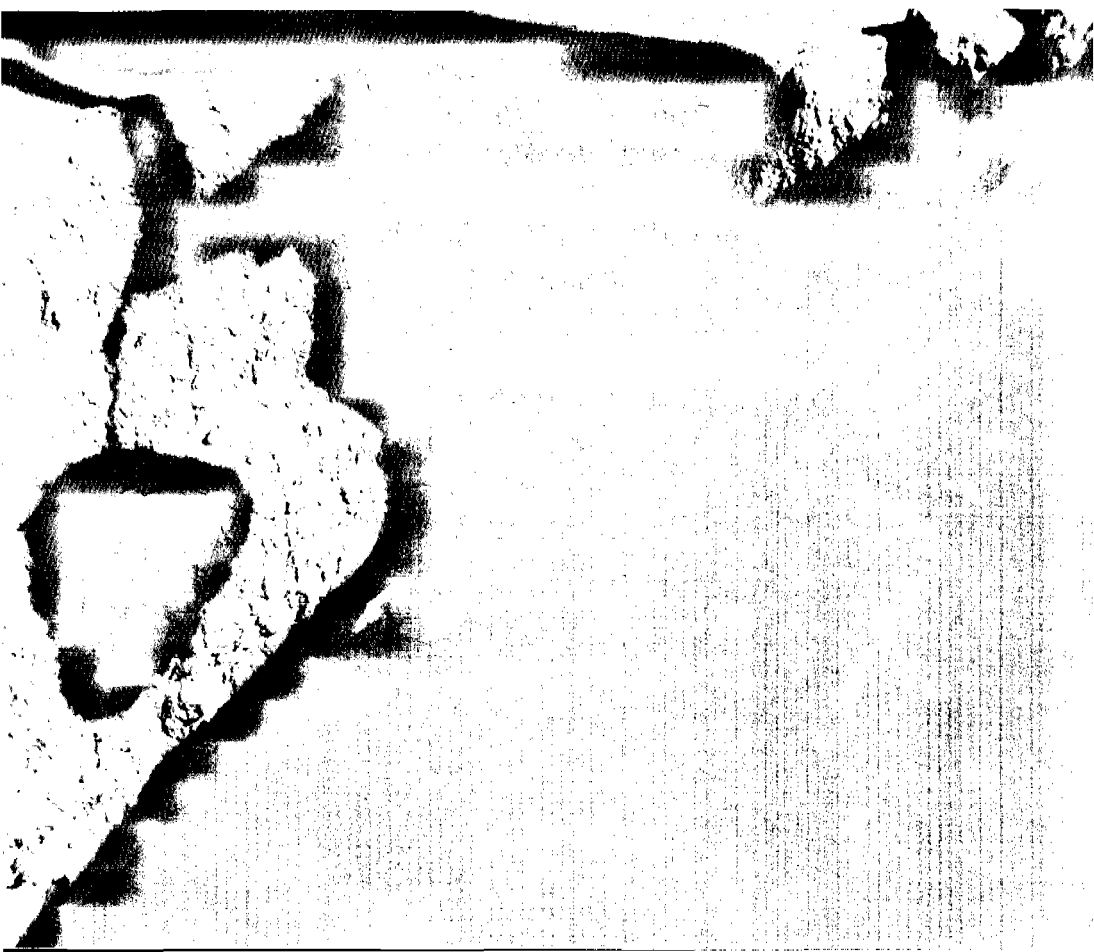
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Water



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I.O:

Who should control water? There is reason to fear severe conflicts owing to water shortages in the next 25 years. The rate of water consumption has been growing at twice the rate of population growth for the past 100 years. Today more than one-fifth of the world's population is already without sufficient clean drinking water. If this situation does not change, one out of every three people will suffer from the effects of acute water shortages by 2025.

The world's poorest people – especially women – are the hardest hit. Provided that they have access to safe drinking water at all, poor people in developing countries often pay many times what their richer brethren spend for water. Three overall aims are of paramount importance if the global water crisis is to be resolved: 1) All people must be guaranteed access to safe drinking water; 2) We must stop wasting water; 3) We must protect against water pollution.

There is theoretical agreement on all these points. But disagreement arises over who should make the investments necessary to pay for them – government or the private sector. There is a current trend to give preference to privatisation of water services over public monopoly. Large enterprises sense an opportunity for profit: for years, multinational corporations, including Nestlé, have been buying up water sources and water concessions, offering to provide water and treat wastewater as services to the general public.

Yet technical investment alone will not necessarily guarantee that everyone has access to water. If access to water is to be guaranteed to everyone in future, it must be managed equitably. We are strongly convinced that equitable management cannot be guaranteed if private corporations control the distribution of water. Water must remain a public good; only in this way will it remain under democratic control. In view of the threat of conflicts over water and discussions about privatisation, there is a need for additional commitment on the part of civil society organisations in the North and the South. The UN Summit on sustainable development (Rio+10) in Johannesburg in autumn 2002 offers a suitable framework within which to launch an international convention on water. Such a convention should establish equitable ways to distribute water within and among countries, and to bar the private sector from exerting control over this vital resource. The present publication describes the issues at stake and what we can do about them.

Peter Niggli, Director
Swiss Coalition of Development Organizations





© Caritas

Disease prevention: The mountain farmers of the Bolivian province of Sacaca have to fetch their water from unprotected water sources. Many suffer from intestinal infections. Mosoj Causay, a local NGO supported by Caritas Switzerland, operates in the province. Among other things it trains mediators who advise the population on matters related to health and hygiene. In 1998 Mosoj Causay co-ordinated the construction of a drinking-water pipe in the community of Kachari. The success of this venture has led to plans for water conduits in four other communities.

Water is becoming scarce Water gave Earth its name: the Blue Planet. Seventy percent of the earth's surface is covered by water, the majority in the form of oceans. Only 2.6 percent is freshwater, of which only 0.016 percent is directly available for human consumption. The rest is frozen in glaciers and the polar caps or «hidden» deep underground in the form of fossil groundwater. Water is a contrary resource: In many regions it is (too) scarce, while in others it flows (too) freely. Thus Switzerland is the water tower of Europe, while many African countries are suffering from chronic water shortages. While every person in industrialised countries uses more than 150 litres of water a day, barely 20 litres is available on average to people in sub-Saharan countries. Water, the symbol of solidarity and sustenance, is increasingly turning into a commodity that divides people and regions. The water situation is now critical. As consumption and pollution increase, supply decreases. An expanding world population is increasing demand. At present 1.4 billion people – more than a fifth of the world's population – are

«When water ends, so does the world»

Uzbekistan proverb



© Richard Casser



© Richard Gorster

Photos: The contrast between arid and humid climate zones is becoming more pronounced. Dead cattle in the Sahel (Mali). (above) A glacier in the Himalayas (Nepal). (below)

confronted with water shortages and have no clean drinking water. Eighty percent of all diseases in developing countries are attributable to polluted water or a lack of hygienic facilities. Every year, 7 million people die as a consequence of unpurified water. Added to this, climate change is upsetting the balance of the hydrological cycle. Drought and torrential rainfall are on the increase and are degrading the natural resource base.

The number of countries with serious water problems is rapidly rising. According to the United Nations, 2.5 billion people or one third of the world population could be suffering from acute water shortages by 2025. While developing countries are hardest hit, the water table is sinking on all continents. Water deficits lead to food shortages and hunger. The tug-of-war between town and country, agriculture and industry will intensify. Water has become a war risk. In 50 years water will become more valuable than gold and more strategically important than oil. The increasing shortage of water has assumed the proportions of a global ecological and social crisis. Tackling this problem is one of the major challenges facing mankind. Our future depends on it.

Sustainable development requires water

There is no life without water. All life on earth is dependent on the circulation of water. The history of human civilisation and the face of the earth have been shaped by water and the ways in which it is tapped, distributed and used. Water has no substitute.

The United Nations Universal Declaration on Human Rights defines the right to reasonable living conditions that enable a healthy life and the provision of food. This implicitly includes the right to water. «Every person has the same right to drinking water, in a quality and quantity sufficient to his needs», declared the UN in 1977. The aim was that all human beings would have access to clean drinking water by 2000. Yet we are now further from achieving this aim than ever before.

At the 1992 Earth Summit in Rio the international community accepted sustainable development as the way of the future. Sustainable development means protecting the natural resource base and securing the future for generations to come; it means offering people in the South fair chances of development and effectively overcoming the unfair distribution of wealth; it means a life of dignity for everyone. Agenda 21, the central document produced by the Earth Summit, makes thoroughgoing protection of water a matter of primary importance: «The future depends on a just and fair distribution of water among various user groups, among different countries, and between human beings and nature.»

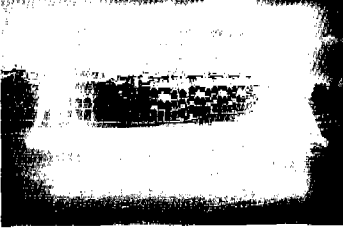
Photos: Who will obtain drinking water? (below)
Golf courses (such as this one in Marbella, Spain) are among the greatest squanderers of water. (right)



© Richard Corster

«Aman imam» – «Water is life»

Tuareg proverb



© Lookal

Nowhere is the tendency to ignore the boundaries of sustainability clearer than in the way water reserves are squandered and over-used. It is no longer enough merely to build deeper wells and longer pipes. Now it is more a case of using only as much as nature can regenerate. Efficient management rather than wastefulness is the order of the day.

On water, UNESCO wrote: «This costly, life-sustaining resource must be regarded as a treasure of nature and part of man's cultural heritage.» International agreements and national laws as well as trade and credit agreements must be based on this philosophy. Water must not become a conventional commercial commodity in the hands of private companies. The ethical imperative inherent in future policies must ensure the basic provision of water to all human beings.

Conscientious water management: Supported by the Swiss-Jordanian Counterpart Fund, engineers commissioned by the Islamic Relief Agency developed the prototype for an 8-meter deep water cistern in North Jordan. The pot-bellied cistern is inlaid with cement and sealed. Rainwater collected on the roof of the house is carried to the cistern, and a small electrical pump transports it to the user. Experiments showed that the collected water can be consumed for over a year without additional purification. The cisterns are ideal for needy families.



© Martin Woker/NZZ

«Never have I held back the waters of
the Nile, never have I blocked the water's
course, never have I sullied the Nile»

Pharaonic inscription in the Valley of the Kings, Ramses III



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Photos: Tensions in the Golan Heights (above) and in the catchment area of the Tigris and Euphrates rivers (below).

Water: a source of conflict in the 21st century

Around the world more than 200 major rivers, lakes and waterways cross national borders. In many regions the growing shortage and unequal distribution of water are causing tension and becoming a security risk to be reckoned with. In its 1990 Report on Swiss Security Policy, the Federal Council wrote: «Even now almost half the world's population is suffering from acute water shortages, inevitably leading to a growing rivalry over the distribution of this essential resource.» In 1991 former UN General Secretary B. Boutros-Ghali prophesied that any future war in the Middle East would be fought over water, not over politics.

When deficient water resources inhibit development, they often become a political football. In the Middle East water problems overlap with territorial and political claims. After Israel implemented its controversial transnational «National Water Carrier» water development project in 1959, the Arab League decided to divert the Jordan's headstreams to the Yarmuk. When the construction work began, Israel

reacted by launching bombing raids. Since conquering the Golan Heights in 1967 Israel has controlled two of the most important sources of the Jordan north of Lake Genezareth. In addition to border-drawing and trade issues, water has continued to be a key factor in peace negotiations between Israel and its Arab neighbours.

In many regions of the world, states bordering on major rivers are forced to seek common solutions, for example the Great Lakes region of Central Africa, the Mekong (Indochina) or the regions watered by the Nile, where the Swiss Peace Foundation has been working on a project entitled «Environmental Conflict Management in the Blue Nile Basin» (ECONILE) since 1999.

By contrast, the basin of the Tigris and Euphrates is the scene of a burgeoning conflict in which Switzerland is indirectly involved. For years Turkey has been working on a project to build 21 dams in South East Anatolia.

The Federal Council has approved an export risk guarantee for the Swiss companies involved in the construction of the Ilisu Dam, the second-largest dam in Turkey. These dams allow Turkey to exercise considerable influence on water use throughout the region, while the downstream countries of Syria and Iraq go empty-handed.



© Caritas

Construction of wells in Toposaland: Toposaland in southern Sudan is extremely arid, subjected as it is to a hot, dry climate. Although armed conflict has not reached this far, the effects of war are tangible. People from war-torn regions seek protection in Toposaland. The volatile social equilibrium is threatened. Access to water is vital for survival. Yet water is in short supply in this region of low rainfall. The available sources of water are frequently polluted and present a health risk. To address this situation, Caritas is building 75 deep wells with the aid of the Chain of Fortune and the Swiss government.

Thirsty agriculture *Water and bread belong together.* 6000 years ago the Sumarians of the plain bordered by the Euphrates and Tigris Rivers dug ditches and diverted water to their dried-out fields. This marked the beginning of the practice of irrigation.

Nowadays agriculture is the world's main consumer of water. Over 70 percent of the water used by people – and over 80 percent in developing countries – is used for food production. Forty percent of food production world-wide is already based on artificial irrigation. The industrial agriculture of the «Green Revolution» has turned to large-scale irrigation. Thus gigantic monocultures such as high-yield types of grain and cotton are grown instead of assortments of crops – accompanied by ever-increasing volumes of fertiliser and pesticide. As a result, soil is frequently salinated, yields are declining and arable land is disappearing. Everywhere there has been a dramatic drop in the water table, and in many instances drinking water is contaminated. Symptomatic of this disaster is the dried-up Aral Sea as well as the life-threatening contamination of drinking water with arsenic in Bangladesh.

Irrigation farming is often synonymous with inefficiency and waste. Sixty percent of the water never reaches the crops. Defective irrigation systems, outdated networks of pipes and unsuitable technologies are causing unused water to evaporate or seep away. Generous subsidies for agricultural water consumption present an obstacle to



© Catholic Lenten Fund

Vegetable growers in Senegal: Despite numerous difficulties the women of Mbwane practice ecological vegetable farming. Ecological agriculture regenerates the over-used, salinated soil, protects the environment, entails cheaper production costs and provides healthy nutrition. To provide these women with ways of irrigating their vegetable plots, Ajac Kolda, a partner organisation of the Catholic Lenten Fund is constructing wells and erosion-proof stone walls.

economical water management and more appropriate farming methods.

Stronger and stronger conveyor pumps are being used. Non-renewable fossil groundwater is being exploited at great depths, and in the long term sources will run dry. Many rivers and lakes are suffering from over-use. The result is soil erosion and desertification, endangering global food supplies.

Sustainable water management for agriculture must be based on the wide range of traditional, small-scale, cost-effective irrigation techniques. Indigenous species and ecological farming require less water than imported plants. Small farmers, who in many countries provide the population with staple foods, must be permitted to have their say in decisions on water policy.

Photos: Efficient water management in arid regions of Africa (as in Niger, illustrated at left) provides the basis for agricultural self-sufficiency. Salt deposits mixed with pesticides and fertilisers in the area previously covered by the water of the Aral Sea. (below)



© Rosmarie Bär



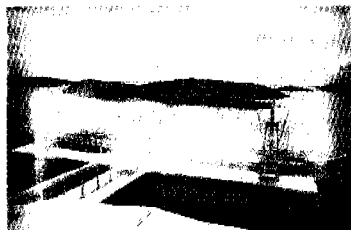
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«You cannot fill the Aral Sea
with tears»

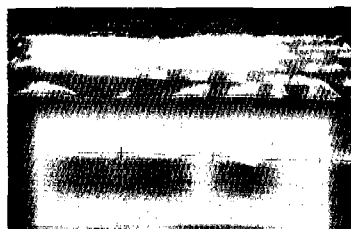
Muhammed Salikh, Uzbek poet

Photos: A Greek freighter brings a shipment of cereals to Sri Lanka. (above)

Careless use of water is leading to shortages even in industrialised countries. Here: large-scale irrigation for production of animal fodder in Idaho, USA. (below)



© Richard Gerster



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«The best thing
of all is water;
better than an
Olympic victory,
better than gold»

Ancient Greek proverb

Water imports, water exports: what is the answer?

There is increasing conflict over the distribution of water supplies for rural and (as a result of rapid urbanisation) urban and industrial use. As a result, primarily agricultural regions near urban regions are being cut off from water. Agricultural production is now being inhibited not only by the lack of land but also by shortages of water. Water is playing an increasingly important role in food security.

More and more, food is being imported to compensate for poor harvests due to water shortages. At first glance this strategy may appear ecologically and economically advantageous for countries with water deficiencies. If one considers that a tonne of grain requires on average a thousand tonnes of water, the import of grain is akin to the import of water. Among those drawing on the rapidly growing grain import market are the semi-arid regions of North Africa and the Middle East. Over 30 countries in Africa, Asia and the Middle East are net food importers. On closer inspection, this apparently reasonable solution

In Guinea-Bissau farmers have a long tradition of cultivating rice fields. Earth bunds erected with great skill prevent sea water from penetrating the country's very flat interior. But a number of years with low rainfall, combined with neglect of the fields during the war for independence, have allowed tidal waters from the Atlantic to penetrate the fields, resulting in the salinisation of fertile land. Whereas Guinea-Bissau was still an exporter of rice in the 1960s and 1970s, it is now heavily indebted and must import much of the rice it needs (40% in 1998) in order to ensure food security for its population. Since 1995 Swissaid has provided assistance in erecting new earth bunds and in desalinising the ground with the aid of an innovative system for collecting fresh water. This technology, based on local know-how, has made it possible to increase self-sufficiency based on staple crops.



© Kathrin Spichiger

seems less sound. More and more people are living in regions where self-sufficient food security is disappearing as a result of water deficits. If, for example, countries like India and China also switch to importing, prices on the world grain market will rise. Poorer countries and sections of the population will then no longer be able to afford grain imports. Added to this, the USA – the world's largest grain producer – is guilty of overusing water for food production, and the soil will no longer be arable in the longer term.

Almost two fifths of the world's grain production is accounted for by foodstuffs exported to fatten poultry and other animals in industrial countries. Since animals convert only 10 percent of their food into meat, human eating habits are responsible in no small measure for the decline in water supplies. Strategies to control the demand for water and ensure a fair distribution between Nature and Man, and between individual countries and the various consumer groups, are of paramount importance.

«Right flows like water and justice like an ever-replenishing stream»

The Prophet Amos



© Prisma

Women – the world's water-carriers

«Women feed the world» was the slogan of the World Food Day in 1998. Women produce more than half of all the world's food supplies. In Africa women grow some 80 percent of all foods and in the rural regions of Asia, Africa and Latin America 90 percent of the corn, rice and wheat crops are tended by women. Responsible for planting and cooking food, they are also responsible for water. Fetching water is usually the task of women and young girls. As producers and users, they are the first victims of water shortage, water pollution and their ecological and social consequences.

For millions of women throughout the world, fetching water is a strenuous daily chore. Women in the South spend a large proportion of their time fetching and carrying water. Every day they walk for hours to fetch 40 to 60 liters of water for their family's needs. This burden gives rise to chronic health problems. For hours these women queue at the well, often setting off in the middle of the night in order to save time on queuing. The normal working day for women in sub-Saharan countries is 17 hours. After such an energy-sapping, time-consuming activity, there is little room for school and vocational training and hence personal development and economic independence.

Access to water must become a key element in rural development. The fight against hunger and poverty is increasingly linked to the efficient provision of water.

Infrastructure projects should not focus primarily on men and their activities (e.g. cattle farming). Women's knowledge can no longer be ignored. Women must be allowed to have their say and the ability to influence events. It is they who need access to water-economising and water-conserving technologies.

According to the Action Plan drawn up by the Rio Earth Summit, «Women play a central role in the procurement, management and conservation of water». Integrated management of water resources requires the participation of women. Equal rights for women are an essential prerequisite for an effective future policy on water and for sustainable development.



© Richard Gerster

Photos: Woman washing up dishes at the river in Udaipur, India. (left)
A waiting line at a well (Mali). (above)



© Swiss Interchurch Aid

Provision of drinking water on Burkina Faso: Many women in the Sahel country of Burkina Faso have to walk 3 to 10 kilometers to fetch water for their families, since their villages do not yet have their own well. The aim of the O.D.E., a partner organisation of Swiss Interchurch Aid and Bread for All, is to facilitate the access to drinking water in the province of Bulkiemdé within the context of its rural development programme. In addition to boring wells, it is also instructing the population on how to maintain and clean the wells.

«What makes the desert beautiful is that somewhere it hides a well»

from: The Little Prince; Antoine de Saint-Exupéry

**Photos: A herd of cattle on
the way to a watering place in
the desert (Mali). (left)
Cattle watering holes in Mali.
(right)**



© Richard Gerster



© Richard Gerster

Traditional water rights The laws on water of indigenous peoples are often linked to communal land rights. In most countries they were supplanted by a statutory law on water and only exist nowadays under certain conditions. Among the Karen of North Thailand traditional water rights are embedded in the ecosystem: Water is a spiritual, living element rather than a material or commodity that can be manipulated. The Karen have collective land rights which are not recognised or protected by the state, with the result that foreign logging companies are able to exploit the forest, eventually leading to ecological consequences for which no-one can be held accountable. So what right protects the long-suffering local population?

Strengthening village communities in Nicaragua: Since 1996 Swissaid has been providing support for the provision of drinking water in various communities of San Ramón. The provision of drinking water and the simultaneous construction of latrines constitute important steps in village development. Equally important, however, is the need to strengthen village communities and their organisation, and raise awareness of the relationship between water and forest and the need to protect water stocks through afforestation. In San Ramón, «Comités de Agua Potable y Saneamiento» were set up with the aim of collaborating on social as well as technical aspects of the project.



© Swissaid

Under their law of water the San, hunter-gatherers of the Kalahari Desert in southern Africa, never refuse strangers access to their water. However, the immigrant Bantu and Europeans proved too much for the fragile ecology: Their herds of cattle ate the wild watermelons and their deep wells dried up the waterholes of the San. Impoverished and starving, the San became the day labourers of the new settlers and beggars on their ancestral land, which was declared private property or government-owned nature reserve. Nowadays the wisdom of other nations has been rediscovered within the context of the international law on water. A ruling in 1997 by the International Court of Justice highlighted some fundamental legal issues. The existing law was to be made «more international» and more ecological, for example through introducing the concept of «custodianship» or the «right of future generations» to natural resources. Both concepts exist in traditional laws on water practised by indigenous peoples. Instead of restricting discussions to the distribution of laws on water between the state and private individuals, it is important to support indigenous peoples, enshrine their traditional laws on water within statutory legislature, and learn about their legal principles.



© Nadia Bindella

Water flows once more from the sources of the Río Macasia: More than a million people depend on the water of the Río Macasia (Dominican Republic) and its offshoot in Haiti, the River Artibonit. The soil in the source region is largely over-used. Helvetas brought the local population and all communities in the source region together with government representatives to discuss the problem and help them draw up a 6-year action plan to protect the source environment, protect against erosion, promote diversified soil-friendly farming, improve the income of the local population, construct drinking water systems, and educate and advise the population. Now water is again bubbling forth from the first of the hitherto dried-up sources.

Mountains: endangered water towers

As rain barriers and water collectors, mountains play a pivotal role in global water management. They store rivers and groundwater streams and in summer provide downstream regions – often thousands of kilometers distant – with water from melted ice and snow. Over half of humanity lives off water from mountains. For instance, up to seventy percent of the Rhine water in the Netherlands originates in the Alps. But this regulating ability of alpine regions is under threat: deforestation, farming at increasingly higher altitudes, erosion and landslides affect the storage capacity, and glaciers are receding in the wake of global warming. Every year Dar es Salam, a city of 3.5 million inhabitants with a population growth rate of 10 percent, needs to draw more and more water from the Ruvu River. Yet 300 kilometers away, at its source in the Uluguru Mountains, the forest is receding faster than the urban population is growing. At its lower reaches the River Ewaso Ng'iro in Kenya holds only 15 percent of the water volume recorded in 1960 – and 90 percent of this originates in the source

region on Mount Kenya. Yet here too the forests are being felled, sources are providing less water, and downstream the river is being tapped mercilessly for irrigation. Farmers, nomads and wild animals on the reserves in the lower reaches are moving upstream, and new conflicts are arising. This vicious circle needs to be broken through integrated water management from the source to the mouth. Farmers, community authorities and governments must act in concert. Projects which protect source regions in the mountains appear offer a promising solution. For local inhabitants this often places constraints on their livelihood and more intensive efforts on the part of all riparian communities. These efforts (afforestation, extensive forest usage and farming) must be compensated for. Users along the entire course of the river must agree on who is entitled to draw water and how much. This is a difficult task, since many rivers belong to several countries and the people living near many rivers are fighting for sheer survival.



© Richard Geisler

**Photos: The Aletsch Glacier, the largest glacier in the Swiss Alps, is receding at a rate of 24 metres per year. (above)
The effects of erosion in Nepal. (below)**



© Richard Geisler

«One only recognises
the value of a source
when it runs dry»

Uganda

Hydro power – curse or blessing?

Water is an ancient source of energy. As early as 1760 BC there are descriptions of water wheels being used. Hydro power is a renewable energy and is essentially eco-friendly. In Switzerland it is the renewable energy par excellence. Whereas hydro power accounts for only 24 percent of the world's electricity, in Switzerland it accounts for over 60 percent. The Swiss Agency for Development and Cooperation (SDC) has published a document entitled «Mountains of the World: Water Towers for the 21st Century» which outlines the experience Switzerland has acquired in the careful management of the vital resource of water and its conversion into energy.

Since global climate protection calls for the use of hydro power low in CO₂, developing countries would be able to substitute this for expensive imports of fossil energy. Self-sufficient water supplies and reduced foreign debts would bring major benefits. Small hydroelectricity plants in many countries could contribute to distributed electricity supplies and thus boost the social and economic development of rural regions.

Often, however, the reality is different. Major infrastructure takes precedence over decentralised solutions better suited to nature and human beings. Dried up river beds testify to excessive water use. Fauna and flora are robbed of their habitat, and biodiversity is lost. The worst destruction has been wrought by the gigantic dams built in many



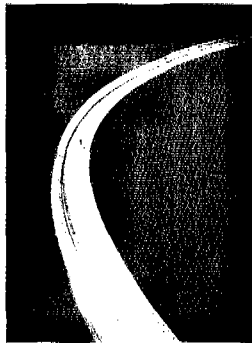
© Itcco

Developing small-scale hydro power in Nepal: In the 1960s, Switzerland assisted with the settlement of Tibetan refugees in Nepal. The Swiss Agency for Development and Cooperation (SDC) commissioned Swiss specialists to provide the expertise needed to establish the carpet-making industry (today one of Nepal's most important economic sectors). In the 1980s it was discovered that deforestation in the Salleri-Chialsa region had reached alarming proportions, partly because Tibetan carpet-makers had a great need for wood to dye wool. This discovery prompted SDC to look for alternative sources of energy. Establishment of a small hydro power plant drawing on the nearby Solu River proved to be the best solution. Investment in the power plant provided electricity for a considerable part of the region, generated non-farm jobs, and helped to diminish the rate of deforestation.

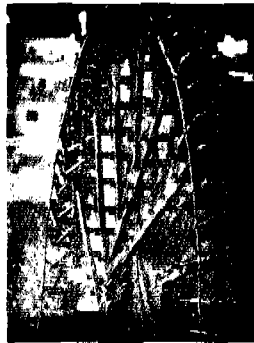
«Forest and fields
shall disappear,
whole villages
shall disappear,
people will
die of hunger,
the Goddess
with her temple
shall disappear –
stop the dam!»

Song of the Adivasi
in the Narmada Valley

**Photos: A man-made
reservoir. (left)
An ancient waterwheel
in Syria. (right)**



© Keystone

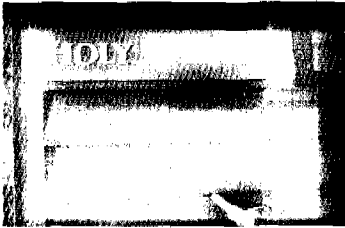


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developing countries over the past 30 years with funding from the World Bank and other multilateral financial institutions. Vast areas of fertile land have been flooded, and sacred cultural goods have been immersed. Instead of generating development and wealth for the poorest sections of the population, hydro power has become a curse for millions of people: They have been carelessly robbed of their basis of existence, forced to resettle, uprooted and marginalised. In many cases, any resistance on their part has been brutally put down by their government. The construction of dams has literally sapped neighbouring countries of their water, giving rise to conflicts that threaten peace. The independent World Commission for Dams (WCD) has drawn up guidelines for future dam projects. It goes without saying that multinational companies, international donors and governments must accept these guidelines as minimum requirements. Around the world the granting of export risk guarantees must be contingent on compliance with the WCD provisions.

«The provision of water must not be permitted to be ruled by short-term market forces. It must remain the sole responsibility of the cities and communities»

Resolution of the Bavarian cities in Germany



© Bruce Stephens/Impact Photos



© Gasparino ES

Photos: «Holy water» – a shrine at the Slipper Chapel in Walsingham, England. (above) Barely 20 percent of the world's population has clean water and sanitation connections. Picture: a slum in Brazil. (below)

Water – from public good to private commodity?

In 1972 the United Nations declared that the entire population of the world should have access to clean drinking water by 2000. Yet more than one-fifth of the world's population still has too little water, and in many places the situation has deteriorated. This sobering balance is attributable to a global frenzy of privatisation. Utilities which were formerly controlled by public authorities are being privatised – in many cases, in order to fill empty public coffers. There is a growing belief that multinational companies could make world-wide access to drinking water a reality. Witness the energy and telecommunications providers, which are often in the hands of the same companies that are now chasing the water supply market. But water is not oil or electricity. It is the substance of life and has no substitute. Water is a natural monopoly. It is and must remain a public good. If it falls into the hands of private enterprises, it will become a private monopoly and a conventional commercial commodity. Short-term profit will take precedence over long-term ecological and social considerations.

Experiences of privatised water supplies are anything but positive. Witness England, where quality and availability dropped while prices rose. Licensing contracts signed with international companies present a major risk to developing countries. This is demonstrated by what happened in Cochabamba, Bolivia: In April 2000, the first massive protests forced the government to reject the demands by International Water Ltd, a private operator, for a sharp rise in water prices without any associated improvement in services. Companies are only interested in existing infrastructures in major conurbations. Millions of people in rural regions continue to struggle with no water supply. Water must not be free. People in developing countries are prepared to pay a reasonable price for this resource. Reliable, decentralised supplies require co-operation on the part of all those involved, including local private businesses such as engineering bureaux and craftsmen, and promote democratic dialogue with the population. Such co-operation requires that countries take their legislative duties seriously and manage and distribute water as a public good.



© Helvetas

Democracy makes water flow:
In 1997 Helvetas assumed responsibility for a special water project in Mozambique. While the mechanisms for tapping springs, diesel pumps and pipes had been in place for years, water flowed only rarely from the taps in Mueda. Instead, tradesmen offered to exchange a bucket of water for a bucket of corn, which village inhabitants could ill afford. The system is now functioning without a hitch. Helvetas merely changed the way water supplies were managed: in place of the central government, the inhabitants and a local technical commission are responsible for operations. Every village elects a well officer who sells the water at the tap, with the village defining the price. The proceeds are used to pay for fuel and small repairs as well as the well officer's wages.

«Water is the font
of all creation, on which
all creatures thrive
but by which they also die
if it abandons them (...)»

Mahabharata 12.183.6806



© Bruno Gurtner

Under pressure from the World Bank, Ghana is being forced to privatise its water supplies. The plan is for two multinational water companies to lease the water supplies with support from the World Bank. Activists are protesting against this move, fearing price hikes and more difficult access to water for poor families. Opponents of privatisation have joined forces in a national coalition against water privatisation and issued the «Accra Declaration» which seeks international support for their campaign.

The IMF and the World Bank: driving privatisation

The World Bank, one of the largest donors to water projects in developing countries, is fully committed to privatisation. Consequently, some of the poorest countries in the world such as Mozambique, Benin, Niger, Rwanda and Yemen, are being forced to privatise their water supplies under pressure from the International Monetary Fund (IMF) and the World Bank. Ironically, this is usually effected through the medium of the new «Poverty Reduction and Growth Facility» credit line. Instead of reducing poverty, however, the effect on the poorest families is that they can no longer pay for clean water.

The World Bank's strategy is based on the French water supply model which supports privatisation through licensing, even although the system is hotly disputed in France on account of corruption and the lack of transparency and competition. Moreover, the World Bank propagates privatisation exclusively for urban water supplies without taking account of the problems of effluent or the provision

of water to the rural population. This approach goes hand-in-hand with multinational water companies which are also interested only in lucrative urban supplies. Until now, rural water supplies were often subsidised by the proceeds from urban supplies, but privatisation precludes this.

Families which have to contend with privatised water supplies and the inevitable increase in water prices which follows privatisation are literally struggling to keep their heads above water. They are being forced to choose between water, food, schooling and healthcare! Yet when it comes to large-scale water supply projects, private water companies generally risk very little of their own capital. In Buenos Aires, for example, subcontractors of multinationals invested only USD 60 million of the USD 1000 million required. The rest was provided by the World Bank, the Inter-American Development Bank and Argentinean banks.

There are, however, alternatives to water privatisation. In Tegucigalpa, the capital of Honduras, and in Sao Paulo, Brazil, state-owned water supplies were successfully restructured with the aid of labour unions. Now they are functioning more efficiently than major private water companies and supplying many of the poorest families in Latin America with clean water.



© Helvetas



© SAMWU

**Photos: No to privatised water!
– Protest action over water
privatisation in Johannesburg,
South Africa. (above)
Child with a water bottle in
Mozambique. (below)**

And the cash rolls merrily in Politicians concern themselves with revising global water policy, while private industry gets down to business: true to the motto «forget aid, think business», the source of life is turned into the source of profit. Countries like England and France have privatised water supplies. For Lyonnaise des Eaux, Vivendi, Thames Water, etc., water is big business, and as global players these companies supply cities like Manila, Jakarta, Ho-chi-minh City and others. The economic potential of the water industry is reflected in the policy of the Geneva-based Banque Pictet: In early 2000 this bank launched an equity fund because of the «above-average growth anticipated in this sector due to the growing demand for water». In the first 18 months this water fund brought investors a sizeable profit of 30 percent. And Pictet expects drinking water production to double by 2010.

In recent years producers of bottled water have been earning high revenues. Thanks to clever marketing and slogans such as «healthy, fit, slim», they have succeeded



© Helvetas

A street-sweeper in Bamenda (Cameroon) earns 50 francs a month, while his counterpart in Jona (Switzerland) earns almost 100 times more. Both pay roughly the same i.e. 60 cents for 1000 litres of water from the local water supply. If the street-sweeper lives in a village without a water supply (63% of the villages in Cameroon), he must buy bottled water at 60 cents per litre if he wants to be sure the water is clean. Thus his monthly wages do not even cover enough for 100 litres of water. To prevent drinking water becoming a luxury commodity in poor countries, it is essential to construct water supply facilities. The construction costs are relatively low in Swiss terms. Helvetas' many years of experience indicate that only 50 francs per inhabitant would be needed to construct a simple water supply facility in the South which, equipped with spring tapping and piping to public taps, could be communally used by 100 to 200 people.

in increasing the consumption of bottled water in Western Europe from 10 liters (1970) to over 100 liters per person per year. Demand has grown in particular for «still water», i.e. uncarbonated water, although this differs from tap water only in price (consumers pay 1000 times more for still water than for tap water!). German water suppliers point out that their water is checked much more frequently than bottled water. In the USA bottled water is even subject to lower quality standards.

Because the market is growing only slowly in richer countries, drinks companies are now investing in poor countries, and particularly in the heavily populated countries of Asia. Here consumption is still under two litres. Producers are well aware that only a few Chinese, Indians or Indonesians can afford luxury water such as Evian or San Pellegrino. So world leaders like Nestlé and Danone have come up with a new type of bottled water for these markets. Using evocative names as «Aqua», «Pure Life» or «Health», they fill a standardised product in bottles which they pump, prepare and mineralise in the countries themselves. Critics are concerned that governments in poor countries could be persuaded to invest less in drinking water supplies due to the general availability of bottled water. But bottled water is expensive. In Pakistan, where the average monthly income is 2000 rupees, one bottle of Pure Life costs 15 rupees.

Photos: Bottled water in the supermarket (Switzerland). (above)

A well in India. (below)



© Christine Pittet (Giacobino)



© Rosmarie Bar

«The highest virtue is like water –
the virtue of water is to help
all creatures without demur ...»

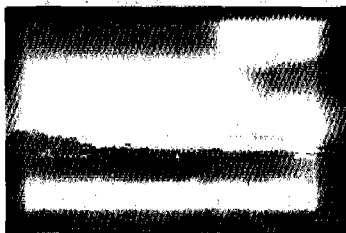
Tao te king 1.8



© Richard Gerster

Photos: Transporting water by oxcart (Sri Lanka). (left)

The Nile – a lifeline for the countries along its banks such as Egypt, Sudan and Ethiopia. (right)



© Keystone

Water and the World Trade Organisation

In none of the 30 agreements drawn up by the World Trade Organisation (WTO) is there any explicit mention of water. Yet there is no doubt that the commercial sectors associated with water (provision, distribution, management etc.) are affected by multilateral commercial regulations, in particular those laid down by the GATS, the General Agreement on Trade in Services.

Theoretically the GATS is an «à la carte» agreement, i.e. each country sets out the sectors which it is willing to liberalise on a national list. One clause of the GATS specifies that it does not apply to activities relevant to the competence of the state under national legislation.

In principle, therefore, public services are not covered by the agreement if member states wish to protect them.

In practice, however, the GATS threatens to liberalise all sectors, including those related to the exploitation of water. The GATS gives no clear definition of the services it covers. It simply identifies 11 categories including environment, energy and distribution. This formulation effectively means

«No frog drinks dry the pool in which he lives»

Inca proverb



© Keystone

In 1999, on the instructions of the World Bank, Cochabamba (Bolivia) privatised its drinking water service. By early 2000 the price of water had increased 35 percent, triggering protests from the population who, from one day to the next, had to pay for a resource which was formerly free or as good as free. Massive protests met with violent suppression by the army prompted the government to cancel their privatisation policy. If Bolivia had subjected its water sector to the GATS, such a decision would not have been possible. At all events it would have led to bargaining, obliging Bolivia to offer important compensations in order to avoid retaliatory measures on the part of other WTO countries.

that the influence of the GATS is potentially huge and could extend to all economic activities, including those related to water.

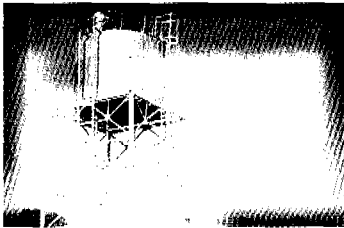
Moreover, the GATS functions as a yoke without any escape clause. If a state decides to open up its water market to competition by subjecting it to the rules of the GATS, it definitively relinquishes any option of reversing the situation. It is also very difficult to evaluate the full effects of liberalisation even in the short term. As a result, countries find it difficult to formulate accurately in advance the reserves they need to protect them against unpleasant shocks. Egypt is the only country to date to open its tourism sector with the proviso that access to the «physical capacity of the Nile» be limited. No other member country of the WTO has taken such a precaution. Yet Egypt is certainly not the only country in the world to depend heavily on the ecological and economic utilisation of its river!

Integrated water use – the way of the future

We are faced with the challenge of dwindling water supplies and a growing population. The worst response would be «Divide et impera». Water, the substance of life, must be the focus of a new universal form of co-operation, in order to preserve this precious resource for future generations.

As a key element in the development of every human community, clean water also implies access to sanitary facilities – to improve health as well as to protect the water. There is an urgent need for action: Whereas 36 percent of people had access to sanitary facilities in 1990, by 1994 this figure had dropped to 34 percent. Effective protection of water resources (groundwater, source and surface water) has implications for agriculture, forest use and industrial use. In addition to plans for water use, it necessitates the establishment of protected zones, effective land use planning, sustainable farming methods and the optimised use of forestry resources. Research and training in the preparation, distribution, use

Photos below: Participation is the primary focus of a water project supported by the Swiss Agency for Development and Cooperation in Niger. The water council makes democratic decisions about use of water in the reservoir.



© Rosmarie Bär



© Rosmarie Bär

«Spilt water
does not return to the bottle»

Kenyan proverb



© Helvetas

Drinking water projects in Nepal: In 1999, with the support of Helvetas, drinking water systems were built in Nepal to supply some 10,000 people. Half the costs were paid by the village by contributing labour, construction materials and funds from local authorities. The population, particularly the women, assume full responsibility. For instance the village negotiates where the taps should be situated.

The population must agree on the locations: everyone would like a tap in front of their own home, but this is far too expensive an option. A plan is being jointly worked out covering everything from source to taps to toilets. Now a Nepalese expert trained by Helvetas is defining the technical details.

and purification of water must be based on simple technologies which are locally available and affordable.

Integrated water use also requires the early involvement of the various user groups at the planning stage. Farmers, cattle raisers, city dwellers, enterprises and public authorities, and in particular women as the main users, must work together.

The responsibility for water must be endowed on the lowest suitable level, among the inhabitants of the same riparian region and among regions bordering on waterways. However, this in turn necessitates appropriate institutional structures and capacities to plan and implement such measures and to establish independent control mechanisms.

Thus the acute threat facing water can be turned into an opportunity for new forms of co-operation and for sustainable local and regional development.

Protection under international law

Access to clean drinking water is one of the pivotal issues of the 21st century: «The global water crisis has become one of the great challenges facing the international community», proclaimed UN General Secretary Kofi Annan. He has called for rapid, resolute action. This is backed by the United Nations Environment Programme (UNEP) in its GEO 2000 report: «The freshwater crisis has assumed the same dimensions and risk level as climate change.» Freshwater, the basis of all life, has become a problem of health-endangering and existential proportions and one of the greatest sources of conflict of our time. Water urgently needs comprehensive protection under international law. Freshwater is inadequately protected and regulated. We therefore call for an international convention of water. It is the duty of politicians and the obligation of the law to secure a basic supply of water, access to clean drinking water and fair distribution for all the countries of the world. An international convention must stipulate the right to water as a basic human right and



© Helvetas

A festival in honour of water: In Sri Lanka the great importance of water can be seen not only in the many ablutions that take place at water sources and in rivers. The existence of a well on one's own property is a reason for rejoicing. Thus, a new source of village drinking water is not just opened, but officially dedicated. These occasions are characterised by the wearing of jewelry and by singing and dancing. A Buddhist or a Hindu priest is present – or perhaps both, in the luckiest instances. The picture shows an artistically decorated altar with rice stalks, bark, flowers, braided palm leaves and fabrics, arranged for the dedication of a drinking water source developed with assistance from Helvetas.

«Water is the most necessary resource for sustaining life, yet it is so easy to squander. It must therefore be protected by law»

Plato

as the right of future generations. The right to water must be an elementary component of the right to food, as defined by the Social Covenant of 1976. Universal regulations also serve to prevent conflict and secure peace. In the same way as the Convention on Climate protects the climate as a «common good for mankind», water must be protected by an international law accord. Like the climate, water is a common good which has no substitute. With its acclaimed competence in water management, Switzerland should provide the impetus. We anticipate that the international community will share this opinion at the UN «Rio+10» conference in September 2002. Johannesburg must become the springboard for global water protection.



© Richard Gerster



© Kristi Lane

Photos: Water is a rare and precious good.

**Sacrificial offering at the Narmada River in India. (above)
East Timorese children drink water from a broken running water pipe. (below)**



© Richard Gorster

«There is nothing in the world as soft and weak as water. Yet there is nothing like the way it stands up to adversity. Nothing can change it. Everyone on this Earth knows that the weak conquers the strong and the soft the hard, but no-one is willing to follow this example»

Lao-Tse

Ten requirements for a sustainable water policy

1. The right to clean drinking water for all

The equal right to water must be explicitly defined as a human right and a right to which future generations are entitled.

2. The right to food means the right to water

The right to food is enshrined in the 1976 International Covenant on Economic, Social and Cultural Rights (Social Covenant). The right to water must be explicitly recognised as an integral part of the right to food. Industrialised nations must meet their obligations through «international assistance and co-operation» and support developing countries in securing their right to food. This should be enforceable as an individual right.

3. Water as a public good

Water has no substitute. It is a natural monopoly and constitutes a social and cultural asset. Water must not become a private commodity and a source of profit. International economic and trade regulations must respect this status.

4. Water must be protected against conflict

A court of justice must be set up to mediate on conflicts over the use of water resources by different countries.

5. Water needs traditional laws

International and national water laws must incorporate the principles of traditional laws which address the sustainable management of water.

6. Democracy benefits water

Democracy and subsidiarity create the best conditions for a fair policy on water. In developing countries the custodial use and management of water must be delegated to local/regional bodies in which all interested parties are represented.

7. Stop water wastage

The most effective way to increase water supplies is to reduce the levels of water lost through irrigation systems, drinking water systems and wastage.

Water prices must be differentiated according to purpose, and progressively staggered in order to create savings incentives.

Water must be affordable to everyone as a basic need.

8. Action on water protection

Pollution of waterways must be energetically combated worldwide, specifically by promoting ecological farming, efficient environmental taxation on industry, and wastewater treatment plants.

Developing countries must be enthusiastically supported in their efforts.

9. Institutionalise the polluter-pays principle

Trans-boundary water polluters must be rendered accountable for the damage they have caused and must pay the costs arising from the consequences of their actions.

10. «Rio+10» – launching pad for a water convention

The international community must agree to draw up an internationally binding convention on water at the UN «Rio+10» conference in Johannesburg.



Further reading:

- Eldis – the Gateway to development:
www.ids.ac.uk/eldis/water/water.htm
- Euforic – Europe's Forum on international co-operation: www.euforic.org [themes → water]
- Pacific Institute for Studies in Development, Environment and Security, The World's Water: The Biennial Report on Freshwater Resources, by Peter H. Gleick (Island Press, Washington, D.C.)
- www.irn.org (International Rivers Network)
- www.thewaterpage.com
- www.worldwatercouncil.org

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The Swiss Coalition of Development Organizations is an umbrella organization of Swiss NGOs, focusing on development policy. It acts as an advocate within Switzerland for disadvantaged social classes in the South, in order to promote a more equitable, peaceful and environmentally sound world. It employs a combination of lobbying, public relations work, and grass-roots mobilisation in activities designed to be politically effective. Additionally, the Swiss Coalition operates a documentation service, and produces educational materials for teachers and students.



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