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Water as a human right: The understanding of water in the Arab countries of the Middle East - A four country analysis

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Foreword

In November 2002 the United Nations Committee on Economic, Social and Cultural Rights issued the General Comment No.15 of 2002 which declares water as a human right as follows:

"Water is a limited natural resource and a public good fundamental for life and health. The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights."

The General Comment is a device that has been used by the United Nations to amplify the rights set out in its Covenants. The General Comment No. 15 of 2002 was issued against a background of increasing fear that water becomes an exclusive commodity not taking into account its nature as an often scarce resource in quality and quantity and the minimum water need of every human being.

Over one billion persons are lacking access to a basic water supply, while several billion are lacking access to adequate sanitation. In developing as well as in developed countries the right to water is still not recognized in a comprehensive manner determined by continuing contamination, depletion and unequal distribution of water.

According to the UN Committee, the principal elements of the right to water are availability, quality and accessibility. Supply must be sufficient for regular personal and domestic use including drinking, sanitation, food preparation and personal and household hygiene. Enough water should be available in all remote rural areas as well as in temporary dwellings in deprived urban areas. Water must be affordable to all. The obligation of States is to respect, protect and fulfil the right on water without dependence on if the water supply is organized by the public or a private company. Therefore the state has to set up and run an appropriate regulatory system, each state is expected to recognize the right on water within the national political and legal system.

With this policy paper based on a four country analysis regarding the human right of water in selected Arab countries of the Middle East the Heinrich Böll Foundation wishes to strengthen the UN concept of human right on water, and to contribute to a full realization of the right to water in these respected areas.

An informed and critical discussion about the state parties commitment to the human right concept between legislatures, civil society and governments is necessary. The Heinrich Böll Foundation intents to force International Financial Institutions to take the right to water into account in their lending policies, credit agreements and other measures. Agreements concerning trade liberalization should not decrease or inhibit a state's capacity to ensure the full realization of the right to water.

Barbara Unmüßig

President of Heinrich Böll Foundation, Berlin, Germany

September 2004

Preface

The water problem in the Middle Eastern region is a highly controversial political issue, a significant component of the Arab-Israeli conflict in general, and the ongoing Israeli-Palestinian conflict in particular. But water is not only a controversial issue between Israelis and Palestinians. The overexploitation of the waters of the Jordan River by Israel again and again creates serious tensions with the Hashemite Kingdom and the Israeli-Syrian controversy about the access to the Lake Kinneret for Syria has blocked any peace agreement until today. And the water dispute between Israel and Lebanon (Wazzani River) is one of the main reasons of confrontations in the southern part of Lebanon. The reason for all these conflicts is the mere fact that the location of groundwater reservoirs is not identical with the course of national borders and rivers and lakes are divided by boundaries, meaning that two or even more states have to share the same aquifers and surface waters.

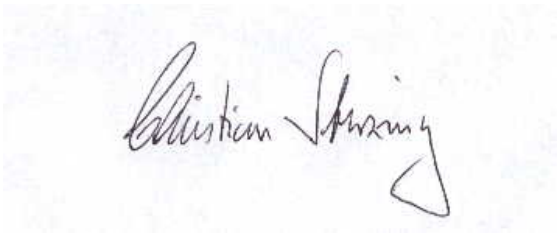
But even where cross-border problems don't exist national sovereignty is no guarantee for a just access to water and therefore for an implementation of water as a human right. In the Arab countries dealt with in this study the lack of accessibility of water for the poor and disadvantaged groups may create serious societal problems and in the long run will affect the domestic stability in the different countries. Therefore water as a human right in the Middle East is an explosive issue in national and international respect and has an impact on the questions of social justice and political stability as well as the regional peace dynamics. That is the reason why the Arab Middle East Office of the Heinrich-Boell-Foundation in Ramallah/Palestine has put one of the priorities of its work to water issues, because we believe in and therefore support peaceful solutions. The complexity of water issues in the Middle East is created by the fact that questions of international law and human rights, social justice and national conflicts, gender equality and sustainable development are intertwined.

Is the solution for the water problems in the region impossible without peace? The water problems of the region are too serious and too pressing, so no one can postpone their solution until a final peace agreement will be worked out. A heavy price for leaving water arrangements to the final status negotiations would have to be paid by the people who lack sufficient water now. Today not only the regional scarcity of water and its just distribution is a problem. The overuse of scarce resources - over-pumped wells and waste of water - and the low standard of sewage and solid waste treatment have created severe problems of pollution and a deterioration of the water quality. If nothing is done in the near future many aquifers in the region will be spoiled permanently. And in the entire region the human right to water is far from being implemented for all parts of the population. In the light of these developments just waiting for peace means condoning human rights violations and irreversible damage to the scarce natural resources..

Therefore the water problem in the Middle East has a short term and a long term dimension. In the current situation immediate measures have to be taken to reduce the dangers of pollution and to improve the water rights of people, i.e. equal rights of access to the water resources especially for the Palestinians in the occupied territories, for marginalized groups and people in the remote areas of the Arab states.

On the long run of course the water issues have to be part of the final status agreement. It is interesting to note that in the Oslo Accords (1993/1995) between Israel and the PLO the treatment of the water issues remained incomplete and were left for the final status negotiations – like the most controversial problems of Jerusalem, the refugees, and the settlements.

Everybody in the region knows that the allocation and control of water resources are vital for survival and therefore are a source of direct conflict and political - sometimes even military - confrontation. Misallocation of water is not only a matter of political power or international law, but a violation of a human right. In a region where water resources are limited and in danger the awareness of interdependency regarding water issues should force everyone to cooperate. More and more people in the region - and hopefully their governments as well – are aware of the cross-border nature of the water resource and the responsibility to share and to protect it jointly. However, this knowledge and therefore the awareness of the need to cooperate are only growing very slowly.



Christian Sterzing

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September 2004

1 Setting the project scene

1.1 Objective

The United Nations has deemed 2003 the International Year of Fresh Water. Last March the World Water Forum was held in Japan to remind the World of an increasingly developing crisis. Half of the world's population is living in unsafe sanitary conditions without access to clean water. A report, drawn up by the World Commission on Water for the 21st Century, estimates that three billion of the world's most deprived people live without access to proper sanitation. One billion of them have no access to safe water at all.

The international community has affirmed the human right to water in a number of international treaties, declarations and other documents. Most notably, the UN Committee on Economic, Social and Cultural Rights adopted in November 2002 a General Comment on the Right to water setting out international standards and obligations relating to the right to water.

Based on the UN concept of water as a human right for selected Arab countries in the Middle East (Egypt, Palestine, Jordan, Lebanon) it is analysed if and to what extent these concepts are acknowledged. Each country study aims to identify the scale of knowledge of and commitment to the UN concept in the region and is meant to identify the main areas of concern in each country regarding water as a human right.

The paper summarizes the main challenges facing strategic and coordinated action towards the UN concept of water as a human right, identifies what types of processes and institutions needs to be developed to meet the challenges of the concept and provides best practise examples from countries that have shown innovation.

1.2 Project partners

This project is a collaborative effort of all research partners.

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1.3 Methodology and analytical framework

The analysis methodology consisted of the following components:

1. *country case studies* following a *common reporting framework* for each of the four countries:

Strategic and coordinated action for each of the four countries was framed by common analytic components. The framework is presenting reporting principles and specific content to guide the preparation of the country reports and hopefully represents the main aim of the projects to identify the scale of knowledge of and commitment to the UN concept in the region.

Analysing the water sector for each country, strength and weaknesses regarding the criteria of the water as a human right concept were identified.

The four country studies were prepared by the project partners each specialized in national water issues of the selected countries.

Box 1: Common reporting framework for country analysis

The national water sector

National macro-economic setting, development objectives and water policies

Water resource assessment: Base and potential

Analysis of demand and supply of water

Regulatory framework of water law

Institutional settings and process

Principal stakeholders, their roles, interests and conflicts

Meeting the UN concept: The national understanding of water

The national water policy and the Human right concept of water

Evaluation of UN criteria

Areas of concern and opportunities

List of NGOs

List of donor activities of governmental and non-governmental organizations

References and further information

2. a *country survey* focusing on criteria of the UN concept for water as a human right:

The General Comment 15 on the right to water sets the criteria for the full enjoyment of the right to water to guideline an evaluation as follows:

- Availability of sufficient and continuous water supply
- Quality of water
- Accessibility of water and water facilities and services: Physical accessibility of water, Economical accessibility, Non discrimination against marginalized areas or groups, Information on water issues

3. a *synthesis report* summarizing the results of the country studies.

2 Water as human right: the concept

For human development access to sufficient water regarding quality, quantity and economy is vital. Today more then 1.2 billion people lack access to an adequate supply of water, more then 2.4 billion people lack access to adequate sanitation. More then 2.4 million people die annually from water related diseases due to an absence of a qualitatively safe water supply; most of them are children. (UN 2003, WHO 2003)

With population growths in many parts of the world, especially in urban areas, freshwater resources are affected by increasing pollution and overuse of existing natural resources resulting in a growing scarcity in quality and quantity of water. A raising competition among the different users and uses of water is the consequence.

The human right approach to water puts the peoples need first regarding water use and promotes human-centred water resource development based on a coherent framework of binding legal norms and accountability. It aims to empower individuals to achieve their full potential of and the freedom to take up opportunities in using water.

2.1 Introduction into the human right concept

The term “human rights” refers to those rights that have been recognised by the global community in the Universal Declaration of human rights, adopted by the United Nations (UN) Member States in 1948, and in subsequent international legal instruments binding on states. The consensus on human rights reflects a global moral conscience. (WaterAid 2003)

Although legal instruments at the international and national levels have recognised and confirmed human rights, the law is not the source of these rights. Human rights are not granted by any human authority or government, but are derived from the essential dignity and nature of humankind. The list of internationally recognised human rights covers all those rights essential for human survival, physical security and development in dignity. There is no hierarchy of rights and all rights should be regarded as being of equal priority. Denial of one right invariably impedes enjoyment of others, leading to the recognition by UN Member States that human rights are indivisible, interdependent and inter-related (UN 1993, WaterAid 2003, Häusermann 1997)

The human rights approach is especially used to challenge the economic and social injustice, particularly toward indigenous peoples, women’s groups, advocates of children, and disabled people.

In summary, a human rights approach to development is one which (WaterAid 2003)

- puts people first and promotes human-centred development
- stresses liberty, equality and empowerment
- recognises the inherent dignity of every human being without distinction
- recognises and promotes equality between women and men, between minority and majority
- promotes equal opportunities and choices for all so that everyone can develop their unique potential and have a chance to contribute to development and society

- promotes national and international systems based on economic equity, equitable access to public resources, and social justice
- promotes mutual respect between peoples as a basis for justice and conflict prevention and resolution.

Human right treaties (covenants, pacts or conventions) are contracts signed by states which are legally binding. They impose mutual obligations on the states. Human rights treaties have been adopted by states worldwide and represent a global consensus about how individuals should be treated in accordance with their inherent rights and dignity. Six core human rights treaties do exist, which are confirmed in international law. [1] Lobbying groups have also adopted human rights texts: The League of Arab States has adopted human rights treaties open to signature by their respective member states.

There are various mechanisms within the UN human rights system to submit complaints of human rights violations: procedures to bring complaints directly under international human rights treaties and special procedures for filing complaints guided by bodies. The Commission on Human Rights and the Economic and Social Council have established what are known as Special Procedures of the Commission on Human Rights. These are a number of additional procedures and mechanisms, undertaken either by "working groups" composed of experts acting in their individual capacity or by independent individuals known as "Special Rapporteurs", "Independent Experts", or "Special Representatives". In 1997, the UN Commission on Human Rights entrusted an individual expert, Mr. El-Hadji Guissé, with the task of drafting a working paper on human right approach to water focussing on the promotion of the realization of the right of everybody's access to drinking water supply and sanitation services.(WaterAid 2003)

2.2 The human rights approach in water related issues

The right to drinking water is defined as the right of every individual to have access to the amount of water required to meet his or her basic needs. This right covers access by households to drinking water supplies and waste-water treatment services managed by public or private organisations. There is a discussion ongoing if this right covers water intended for commercial, industrial or agricultural uses as well. (UN 2002a)

The human right on water has been explicitly recognised in several international human rights treaties[2], especially in the *International Covenant on Economic, Social*

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[1] The six core human rights treaties are:

The International Covenant on Civil and Political Rights, adopted in 1966 and which entered into force 23 March 1976;

The International Covenant on Economic, Social and Cultural Rights, adopted in 1966, entered into force 3 January 1976;

The International Convention on the Elimination of All Forms of Racial Discrimination, adopted in 1965, entered into force 4 January 4 1969;

The Convention on the Elimination of All Forms of Discrimination Against Women, adopted in 1979, entered into force 3 September 1981;

The Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, adopted in 1984, entered into force 26 June 1987;

The Convention on the Rights of the Child, adopted in 1989, entered into force 2 September 1990

[2] The human right on water is also protected in times of conflict under the Geneva Conventions.

and Cultural Rights[3] and other international binding laws and regulations[4]. To monitor the implementation of that treaty an independent expert committee, *The Committee on Economic, Social and Cultural Rights* was established. This committee was responsible for elaborating the content and obligations attached to the right to water in its *General Comment No 15*, "The right to water" (articles 11 and 12 of the *International Covenant on Economic, Social and Cultural Rights*). The Committee defined the right to water as follows: (UNHCGR 2002)

"The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses."

Significantly, the Committee stated that:

"The right to water contains both freedoms and entitlements. The freedoms include the right to maintain access to existing water supplies necessary for the right to water, and the right to be free from interference, such as the right to be free from arbitrary disconnections or contamination of water supplies. By contrast, the entitlements include the right to a system of water supply and management that provides equality of opportunity for people to enjoy the right to water."

Doing so the Committee recognized that water itself was an independent human right.

The right to drinking water means that all persons, without discrimination, must have access for their basic needs to a sufficient quantity and quality of water supplied. The basic need for water must be economically affordable especially for the poor, and not dependent on if a public or private entity supplies the water. States must take all necessary measures to enable the poorest people to enjoy the human right on water, e.g. introducing subsidised water prices.

Governmental obligations with regard to the human right on water can broadly be categorized in obligations to *respect, protect, and fulfill.*

[3] ratified by 146 countries

[4] According to the European Council on Environmental Law, water is above all a social good, that is, a resource that forms part of the common heritage of humanity. Water is also seen as an economic good of great value, but which cannot be treated as a mere commodity like other consumer goods. The Council stresses that access to drinking water must not be subject to market forces dominated by the profit motive.

Box 2: Categorization of governmental obligation with regard to the human right on water

Respect. The obligation to *respect* requires that States Parties refrain from interfering directly or indirectly with the enjoyment of the right to water.
Protect. The obligation to *protect* requires that States Parties prevent third parties such as corporations from interfering in any way with the enjoyment of the right to water.
Fulfill. The obligation to *fulfill* requires that States Parties adopt the necessary measures to achieve the full realization of the right to water.

Source: WHO 2003, UN 2002b

The General Comment 15 affirms that (WaterAid 2003):

"The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights".

Hence, it is recognized that this right has already been recognized in a wide range of international agreements.

Regarding the normative content of the General Comment it is stated that the right to water comprises both:

- *"Freedoms"* - such as the right to be free from interference through, for example, arbitrary disconnections or the contamination of water supplies, and
- *"Entitlements"* - including the right to a system of water supply and management that provides equality of opportunity for people to enjoy the right to water

Furthermore it is stressed that water should be treated as a social and cultural good, and not primarily as an economic good.

General Comment 15 reaffirms the margin of discretion allowed to States Parties under international human rights law, at the same time stressing that states are obliged to utilize:

"All appropriate means, including particularly the adoption of legislative measures in the implementation of their Covenant obligations."

States obligations regarding the right to water and acknowledgements of constraints due to the limits of available resources are recognized as well but it is clearly stressed, that :

"States Parties have a constant and continuing duty under the Covenant to move as expeditiously and effectively as possible towards the full realization of the right to water"

The General comment calls for guidelines on the three main areas in the implementation of the right to water at the national level, does not identify details on how to do so. These three areas are as follows (WaterAid 2003):

- The formulation, implementation and monitoring of legislation, strategies and policies;

- The identification and application of suitable, sufficiently disaggregated indicators and benchmarks for monitoring States Parties compliance with their obligations and progress towards the full realisation of the right to water
- The provision of access to effective judicial or other appropriate remedies at both national and international levels for any persons or groups who have been denied their right to water

Furthermore international obligations concerning the right to water are outlined. These include (WaterAid 2003):

“Positive” obligations of States Parties - for example, to ensure that the right is given due attention in international agreements, or the special responsibility of the economically well developed States Parties to provide aid and international assistance to poorer states parties

“Negative” obligations, such as refraining at all times from imposing embargoes or similar measures that prevent the supply of water, as well as goods and services essential for securing the right to water

The General Comment also stresses the fundamental importance of ensuring access to adequate sanitation and States Parties obligation to progressively extend safe sanitation services, particularly to rural and deprived urban areas, taking into account the needs of women and children.

Non-state actors obligations are stressed as follows (WaterAid 2003):

- Co-operate effectively with States Parties in relation to the implementation of the right to water
- Incorporate human rights law and principles into both policy and action; for example, the right to water should be taken into account in any lending policies, structural adjustment programmes or development projects
- Give priority to the most vulnerable or marginalized groups of the population in the provision of aid and the distribution and management of water and water facilities

Defining water as a human right leads to a broader basis for advocacy work for the water needs of human beings. Utilising the right to water means: (WaterAid 2003)

- Paving the way for translating the right to water into specific national and international legal obligations and responsibilities;
- Raising attention towards water management all over the world;
- Identification of minimum water requirements and allocations for all;
- Setting priorities for water policies centred around the water needs of human beings;
- Catalysing international agreements on water issues and, thus contributing to resolutions of watershed disputes and conflicts between different users
- Emphasising the governmental obligation to ensure sufficient access to water and sanitation.
- Providing a basis for lobbying towards water needs on the basis of political commitments

All human rights are indivisible. They are inter-related. A lack of water and sanitation clearly has an impact on the enjoyment of other human rights, such as the rights to education, health and work, which form an essential basis for poverty elimination and human development as well.

Recognizing water as a human right creates the political will to solve the water crisis, lowering poverty and raising health by establishing a partnership between the human rights and the water sector community.

3 Analysis of UN criteria

The following chapter analyses the UN criteria given in the Comment and intends to identify the main shortcomings regarding the human right concept. For detailed numbers and figures as well as special issues please see the country case studies.

3.1 The criteria of the UN concept

Availability

Regarding physical access the Comment states that "*a water supply is sufficient and continuous for personal and domestic uses, such as drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene"* if it follows at least the basic access defined in the WHO guidelines (Please see ANNEX I:). It needs to be taken into account that some individuals and groups may also require additional water due to health, climate, and work conditions. (UN 2002b) Regarding the WHO guidelines for each of the countries, it can be stated that there is a lack of information to fulfil the needs for an evaluation of the WHO guidelines.

Water quality

Water is often also scarce in quality. The water supplied must be safe regarding water quality for domestic use aspects as well.

The Committee refers to the WHO Guidelines for drinking water quality (WHO, 1993) which are meant to guide governments to develop national water quality standards to be sufficient to fulfil all human beings needs.

Accessibility

Regarding the Comment water and water facilities and services must be accessible to every human being. It identifies four overlapping dimensions of accessibility, defined as follows (UN 2002b):

- Physical accessibility:

"Water, and adequate water facilities and services, must be within safe physical reach for all sections of the population. Sufficient, safe and acceptable water must be accessible within, or in the immediate vicinity, of each household, educational institution and workplace. All water facilities and services must be of sufficient quality, culturally appropriate and sensitive to gender, life-cycle and privacy requirements. Physical security should not be threatened during access to water facilities and services."

WHO Guidelines for water availability mentioned above are serving as the guiding document in assessing that criteria as well.

- Economic accessibility:

"Water, and water facilities and services, must be affordable for all. The direct and indirect costs and charges associated with securing water must be affordable, and must not compromise or threaten the realization of other Covenant rights."

In general, water service is affordable, when not more then 2% of the average family income needs to be spent for water. (AWWA 2000)

Non discrimination against marginalized areas or groups

"Water and water facilities and services must be accessible to all, including the most vulnerable or marginalized sections of the population, in law and in fact, without discrimination on any of the prohibited grounds." (UN 2002b)

Governments are obliged to take steps to remove any de facto discrimination that could impede enjoyment or exercise the right to water. They have to give special attention to those individuals and groups who have traditionally faced difficulties in exercising the right to water, e.g. women, children, minority groups, indigenous peoples, refugees, asylum seekers, internally displaced persons, migrant workers, prisoners and detainees.

Information on water issues

All states are obliged to make information about water freely accessible, "*including the right to seek, receive and impart information concerning water issues.*" (UN 2002b)

3.2 Evaluation of the UN criteria

EGYPT

Criteria	Current statistics and / or situation	Comments
Availability of sufficient and continuous water supply	Per capita availability of fresh water decreases with time (per capita fresh water = 815 CM/year) It is expected to drop to only 500 m^3 in 2025 Egypt share of Nile water is fixed by 55.5 bm^3/year Rainfall is very limited only on the northern part of delta.	Participate in the Nile basin imitative to decrease the river water losses for the benefit of all basin countries Rainfall & flash flood harvesting Potential increase of utilization to 12.0 BCM/year Desalination is actually practiced in the red sea coastal area to supply tourism villages and resorts with adequate domestic water supply Expand utilization of non-conventional sources potential increase of agricultural drainage reuse = 7.5 BCM/year potential increase of treated sewage water reuse = 4.5 BCM/year
Water quality	Increasing rate of high pollutants in network of canals and to less degree in the river Nile. Some black spots are present along the Nile River and the irrigation drainage network. Gradual increase in groundwater contamination (due to use of pesticides/ fertilizers/ mixed salt fresh water) in the rechargeable Nile aquifer	Prevent untreated or semi treated municipal and industrial waste water from discharging into drains and sometimes directly into the Nile river and canals. Prevent water discharging in the Nile river in upper Egypt Decrease the leaching of fertilizers and pesticides from agriculture

Accessibility of water facilities and services:		
Physical accessibility	High rate of population increase about 2% annually High rate of urban expansion Low efficiency of the municipal water distribution net work (leakage losses) Water quality degradation	First priority should be given to municipal water demand: Surface water supplies (83%) groundwater supplies (117%) Increase safe piped water coverage 97% for urban population 70% for rural population Increase sanitary facilities coverage for rural population
Economic accessibility	High investment in capital costs of municipal and sanitary services. High costs for operation and maintenance of the municipal and sanitary distribution networks Low income of population, especially in rural areas High level of unemployment High level of illiteracy	
Non-discrimination	Low investments and poor services for population in rural areas Poor maintenance and misuse of facilities in rural areas	Better allocation of budgets and investments for urban and rural areas Use of mechanism for incentive distribution for national use of fresh water in rural areas.

Information accessibility	Information are difficult to obtain due to poor dissemination systems and low investment in informatics industry	Raise public awareness for informatics technology Invest more in information dissemination Invest more in building communication facilities
Water for food	Annual net deficit in the agriculture trade balance about 3.03 billion US$ The shortage in food supply reached about 7.7 Million tons representing 30% of total demand Increasing Gap between Supply and Demand for Food The amount of food aid that is given to Egypt from donor countries has been declined sharply in the last decade	Provides subsidies to four main food items bread, wheat flour, and sugar and edible oil. Bread and wheat flour are available to all Egyptians while sugar and edible oil are distributed through ration cards The number of subsidy card holders reduced from 79% in 1994 to 65% in 1999 as a result of the government policy to reduce food subsidies where the total budget cost of food subsidies reached 4 billion L.E. (about 1.5% of GAP) Increase self-sufficiency ratio of major crops Increase of self-sufficiency ratio of wheat to be 75% through improving both the supply and demand for wheat Expand the use of mixing wheat and maize (80% wheat and 20% maize) in producing baladi bread to reduce the demand for wheat Increase the self-sufficiency ratio of edible oil to 26%

Water for environmental hygiene (the right to health)	Direct release of industrial effluents to the river Nile Low sanitation coverage Low level of public awareness	Stop 32 main industries from dumping its water to the river Nile Strengthen environmental laws and legislation The industrial sector has allocated about 2.4 billion LE in the last decade on wastewater treatment projects to comply with the environmental regulations Building national network for water quality monitoring
Water for households (the right to adequate housing)	Safe water for municipal use is provided to 97% of urban areas and population, 70% of rural areas and population.	Increase investments in building municipal and sanitary facilities Sanitary facilities to be increase for rural areas Increase expenditure on operation and maintenance of the distribution systems Raise public awareness for rationalizing the use of fresh water
Water for securing livelihoods (the right to work)	Increasing rate of unemployment Un-efficient and non adequate treatment elements Low level of capacity building	Increase the rate of implementing treatment plants Organize training programs for young professional about operation and maintenance of municipal and industrial facilities and networks.

Sectoral water distribution	Per capita cultivated land has been declined over time from 0.51 feddan in 1897 to 0.23 feddan in 1960 and to 0.11 feddan in 2000 Share of agricultural sector has been declined to 14% of GDP Share of industrial sector is 33% of GDP Share of services sector (including government) is 51% Increasing demand for water in all sectors Total agricultural water demand = 61 bm^3/year Crop consumptive use = 41.441 bm^3 Municipal water demand = 4.6 bm^3/year Industrial water demand = 7.53 bm^3/year	Increase agriculture land area by 3.4 mf by year 2017 Encourage private sector participation in industrial sector development Expand the use of thermal power plants in electricity generation Liberalization of agriculture sector Navigation and hydropower generation are only by-products of water released for other purposes
Management of available resources	Cultivation of intensive water demand crops Low on-farm efficiency High transmission losses in the irrigation network Low level of public awareness of water scarcity Centralized water management controlled by the government	Overall efficiency of Nile water use is high due to multiple reuse of drainage, shallow groundwater, and wastewater Decrease gradually the rice area and restrict it to 700 thousands feddan Keep the sugarcane area constant at 300 thousand feddan to satisfy the existing sugar mills capacity and gradually increase the area of sugar beet to compensate the limitation on sugarcane area Increase agriculture productivity by 40 % annually

		Expand the iip project to cover all agriculture land Institutional reform of water sector Increase water users participation in the management process: -National water resources plan -Water user associations -Water boards
Cost recovery of water services	Increasing budget for O&M of water management The Government is almost the sole source of funding for water resources management projects	Annual budget of MWRI increased from L.E. 2.39 billion in 1997/98 to L.E. 4.46 billion in 2003/04 Annual budget of MALR has been increased from L.E. 3.35 billion in 1997/98 to L.E. 6.88 billion in 2003/04

JORDAN

Criteria	Current status	Comments
Availability of sufficient and continuous water supply	97% of population is linked to public water supply systems, with an average of two days supply per week	The public water supplies are not sufficient for households consumption, demand is rising for bottled and tanked water
Water quality	Figures and statistics are variable. Independent assessment show that more than 50% of spring waters is biologically contaminated and a high salinity level. Surface water is not adequate for drinking	More investments in water treatment plants are being developed. More emphasis on brackish water desalination for drinking purposes and reuse of treated wastewater for agriculture.
Accessibility of water, water facilities and services		
Physical accessibility	100% of urban and 87% of rural population served with piped water. Many rural households have cisterns	Huge amounts of investments are needed since most reliable water resources are far from major human settlements. Treatment plants are well distribution all over the country.
Economic accessibility/ affordability	Domestic piped water prices are within the affordability of the Jordanian poor. The supply is not continuous and the water prices for bottled water and tanked water is 8-10 times more than piped water.	Water supply is still considered as subsidized by the government; the discontinuity of water supply forced people to buy bottled and tanker water. Privatisation of water supply network and utilities had a minor impact on the economic affordability

Non-discrimination	Water supply in rural areas is only 8% less than urban areas. No significant geographical discrepancies are there.	With increasing population and decreasing resources, a discrepancy in water rights between the rich and poor could be evident with privatisation processes.
Information accessibility	Good media coverage of water issues and some awareness activities by civil society. Databases of water present in public and research institutes.	Vital information and data not accessible to public or even independent researchers.
Water for food	Agricultural practices add to water exploitation. Increasing agricultural water tariffs leaves family farmers in a non-competitive state with modern industrialized farmers/investors	Stringent bylaws to monitor water abstraction from agriculture water wells causes unrest in farmer communities. Deep agricultural reforms are needed
Water for environmental hygiene	Badly treated wastewater is a major cause of environmental degradation. Basic water flows are decreased in all aquatic ecosystems.	Reduced amounts of available water contribute to health and contamination problems, especially in rural and urban areas with low sanitation levels.
Water for households (the right to adequate housing)	More than 90% of households connected to water network. Inadequate maintenance conditions in poorer areas.	All new households are required by law to have water collection cisterns,
Water for securing livelihoods (the right to work)	Industrial water demand is on the rise. The prices for industrial and commercial water is high (about 1.0 per CM)	More allocation of industrial water on the expense of irrigation water, priority shift to industries.

LEBANON

Criteria	Current Statistics and/or Situation	Comments
Availability of sufficient and continuous water supply	Only 16% have high satisfaction of needs with 74.2% and 9.8% classified as intermediate and low, respectively	No information about continuity of flow and rationing hours.
Water Quality	Up to 70% of the water sources are contaminated by either microbial or chemical agents	Water authorities chlorination units functional but the secondary and tertiary networks deteriorated
Accessibility of water, water facilities and services		
Physical accessibility	79.2% have access to public network, 16% are connected to public network or private network and an artesian well, and 4.7% are not connected to any network	Secondary and tertiary networks are deteriorated and were not subject to adequate rehabilitation.
Economic accessibility	Price per cubic meter ranges from USD1 to USD 2.5 for underground water. Public network fees USD 130-USD 150 per year for 1 CM/day	Not affordable for all households and tendency to increase share through illegal actions
Non-discrimination	Remote areas of Akkar and Hermel are mostly affected by the coverage of the public network.	Political strength affects the accessibility
Information accessibility	Existing data are inadequate, but mostly not for public use.	Political dimensions control the accessibility to information
Water for food	Limited to rural areas for food production and processing. Major consumer of water (>60%)	Irrigation techniques and networks should be improved to reduce losses

Water for environmental hygiene (the right to health)	Sewage treatment exists in very few villages. Sewage water is causing pollution of ground and seawater.	Health problems are become more frequent due to contact with polluted water
Water for households (the right to adequate housing)	n.n.	n.n.
Water for securing livelihoods (the right to work)	Industrial consumption about 12% of total while Agricultural is about 70%.	Need to support irrigable areas currently rain-fed only. Industrial consumption needs revision for unaccounted sources

PALESTINE

Criteria	Current statistics and/or situation	Comments
Availability of sufficient and continuous water supply	42.3% of localities have a continuous water supply; 19.2% partial. 26.3% of households have cisterns in the West Bank.	~40% of served localities suffer from water shortages. 22% of population not served with piped water.
Water Quality	West Bank: Good quality 89.9% Gaza Strip: Good quality 28.7%.	Unsafe and unacceptable water quality in the Gaza Strip. There is also a potential for soil and groundwater pollution from agro-chemicals, industrial activities, and improper disposal of wastewater and solid wastes.
Accessibility of water, water facilities and services		
Physical accessibility	55% of West Bank localities served by piped water – 88% of population. 95% of Gaza Strip localities served by piped water.	Most urban areas have piped water supplies – although not always reliable and continuous. Many villages are not able to become connected to a piped water network because of a lack of access to water resources.
Economic accessibility	Price per cubic meter of water for Palestinians is about 5 NIS. Tanked water is 5-6 times more expensive, reaching 25 NIS per CM	The cost of water is high, even though there is a graduated tariff system. The current socio-economic conditions make paying utility bills very difficult. The rural villages – and even some urban areas – are forced to buy tanked water at very high prices.
Non-discrimination	Services low in small villages and refugee camps.	These places suffer most from the Israeli measures of collective punishment and oppression.

Information accessibility	Water resources data base exists Some public awareness in schools and during specialized workshops	Data not easily accessible to public.
Water for food	Household gardens increasing in number. Agricultural lands being left unplanted	Water for irrigation minimal. No increase in allocations since 1967. Access to agricultural land restricted.
Water for environmental hygiene (the right to health)	Environmental conditions often poor due to improper disposal of wastewater and solid wastes – and lack of readily available water supply.	Public health problems increasing due to poverty, lack of water and facilities for proper hygiene, and deteriorating economic conditions.
Water for households (the right to adequate housing)	City households with water supply 70% Villages and refugee camps not all connected to piped water.	Inadequate housing conditions increasing due to lack of services and infrastructure and building destruction.
Water for securing livelihoods (the right to work)	Industrial water supply 8% of total.	Socio-economic conditions deteriorating. No increase in water allocations for industry expected in near future.

4 Main concerns and development objectives regarding the UN concept

The UN concept for water as a human right was used as a tool for analysis using the criteria given within the concept. The main concerns and development objectives regarding the UN concept in general and evaluating the country studies which has been identified are as follows:

4.1 Indicators and benchmarks

Indicators can provide a broad, yet succinct, description of the condition of a water sector. They can describe and track changes in key aspects as well as in the sector configuration and conditions.

The UN concept lacks a coherent system of indicators to evaluate a water sector. Often problems arise in certain areas, which are difficult to access by the suggested WHO guidelines making it difficult to identify inequalities and discrimination faced by people, which impede their development. A comprehensive indicator system and corresponding benchmarks could help to overcome these shortcomings.

4.2 Information lack

Good and accessible information is the basis for making decisions about water resources. To evaluate the water sector detailed information are needed.

Information and data availability varies from country to country. Most concerns exist regarding data accuracy, reliability, consistency and deficiencies.

4.3 Poor governmental commitment to the human right concept

Water governance refers to a range of political, social, economic and administrative systems that are in place to regulate the development and management of water resources and provision of water services at different levels of society. Effective water governance is a prerequisite to fulfil the human right on water.

Regarding the governmental commitment to the human right concept it can be stated that there is no single legal norm in any of the countries evaluated serving as a binding instrument for the human right on water although national governments are obliged to fulfil international commitments on human rights. Governmental obligation to fulfil international law regarding water in general depends on political interests and economic viability.

4.4 Low awareness of people of the right on water

People are in general not aware of their right to sufficient water supply in quality and quantity. People often simply do not know about their right. Education and empowerment could serve as a way out and a starting point for political engagement.

Stakeholders such as NGOs play an important role in encouraging dialogue among people towards their awareness of the right to water.

4.5 Growing awareness of water problems and water saving possibilities

In all countries a growing awareness of water as a finite resource were identified, but still work needs to be done. Often water is seen as a political issue rather than a basic need for life.

Several methods and tools are available to promote water awareness to create an environment to support effective water policies and an understanding of water issues, which should be applied.

4.6 Discrimination of marginalized groups

Discrimination is still in place depending on political power, especially discrimination of people living in remote areas and social groups with low economic capacity.

4.7 Growing number of people who cant afford water

In each of the countries analysed a growing number of people exists who cannot afford a minimum of water supplied. Often people with no or low access to water are affected, living in poor neighbourhoods who must buy water from private vendors at high water prices. A free provision of a certain amount of water or providing of water at an affordable level to serve basic needs should be obligatory.

4.8 People centred approach

As expected for a human rights approach, the UN concept for water as a human right is characterized as a sole people-centred approach to development, not recognising the “water rights” of environment in an equal manner.

A people centred approach is preferable to a top-down approach which was traditionally in place with water systems imposed on the people by governmental and professional sectors. It is more effective, efficient and less costly. But water is also needed to maintain and recreate nature and environment. The amount of water for peoples' use needs to be balanced with the needs of the environment.

5 The role of NGOs in the realization of the human right on water

5.1 Possible fields of NGO activities

Internationally active NGOs could contribute in several ways to the realization of the right to water.

The identified possible fields of activity are as follows:

- Promoting human right concepts by raising awareness and informing on aspects of the right to water and on how citizens can claim that right and assist others in fulfilling it;
- Building capacities among local groups to monitor the commitment and work of local government and therefore contributing to ensuring that an adequate policy is in place, and that the policy is implemented;

- Supporting local service provision by raising awareness to water as a limited resource, e.g. awareness campaigns, informing and training, especially in schools for instance in the management of community water supplies.
- Contributing to the development and promotion of international standards, benchmarks and indicators on the right to water;
- Documentation and highlighting of violations of the right to water;
- Advocating in international and regional forums on behalf on those who have had their right to water threatened or violated.

5.2 Pre-condition for work

Especially in Palestine, but in all other countries as well, the political situation is affecting much work and engagement of NGOs in water issues. During the last decade working on water issues became a key NGO working concept in most of the countries of the Near East. Environmental NGOs are the main player; NGOs which are affiliated with political parties are recently only exceptionally engaged.

The fact that several NGOs are running regional offices in different countries is seen as a great advantage in contributing to the realization of the human right concept on water. Precondition for solving the ongoing water crisis is cooperation between the affected states, primarily if they are using the same water resources. Cooperation between Israel and its Arab neighbours is seen as a precondition for each future project. Sensitivities of the Arab partners in doing so needs to be carefully taken into account.

Depending on the project content, a suitable project partner needs to be identified. Numerous NGOs have been identified in each country by the project partners which certainly are willing to cooperate.

Sufficient financial sources need to be provided.

6 References

(Only the references of the synthesis report are listed. Please see the country case studies for further references.)

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ANNEX I: WHO Indicators for physical water access

Table 1: Service level and quantity of water collected

Service level	**Distance/time**	**Likely volumes of water collected**	**Needs met**	**Intervention priority and action**
No access	More then 1 km/ more then 30 min round trip	Very low (often below 5 Liter/capita/d)	Consumption can not be assured, Hygiene practise compromised, basic consumption may be compromised	Very high Provision of basic service
Basic access	Within 1 km/within 30 min round trip	Average unlikely to exceed approximately 20 Liter/capita/d	Consumption should be assured, Hygiene may be compromised, Laundry may occur off-plot, e.g. away from home	High Hygiene education Provision of intermediate level of service
Intermediate access	Water provided on plot through at least one tap (Yard level)	Average of 100-200 Liter/capita/d	Consumption assured, Hygiene should not be compromised, Laundry likely to occur on-plot, e.g. within the confines of the household	Low Hygiene promotion still yields health gains Encourage optimal access
Optimal access	Supply of water trough multiple taps within the house	Average of 100-200 Liter/Capita/day	Consumption assured, Hygiene should not be compromised, Laundry will occur on-plot	Very low Hygiene promotion still yields health gains

Source: : (Howard 2003

ANNEX II: Curriculum Vitae of project partners

KAREN ASSAF

ARAB SCIENTIFIC INSTITUTE FOR RESEARCH AND TRANSFER OF TECHNOLOGY, PALESTINE

Most professionals in the water sector in the Middle East recognize Karen's contribution in water research and water management and understanding of its multiple uses. Since she moved to the Palestinian area of the West Bank 27 years ago from her last position as a loss prevention specialist in the water pollution problems at Shell Oil Company in Houston, many of the current Palestinian water experts were either taught, trained or had joint water research and development projects with her.

With a Ph.D. in Environmental Science/Hydrology and a dissertation on water recharge from the University of Texas at Houston, Dr. Karen Assaf started on the right footing when she entered the water deficient Middle East region. Recharge was the key for joint cooperation of ideas with no conflict between Palestinians and Israelis. She has taught at local universities (Birzeit and the Arab University of Jerusalem – called Al—Quds University) and worked for many years with an international NGO in implementing over 65 town and village water projects and 40 health clinics in both the West Bank and Gaza Strip. Dr. Assaf published many articles, books, and reports on various aspects of water management and lately put forward the concept of the water usage cycle, instead of the traditional water cycle.

Dr. Assaf was accredited by many honours, such as Board membership in the International Water Resources Association, the UNESCO and ESCWA Mideast water experts groups and a USA National Academy of Science committee, Palestinian representation in the Multilateral Water Resources Group, an Advisor to the Palestinian Water Authority, and consultant on environment and water for the National Scientific Research Centre of Palestine. She chaired many international water and environment conferences. All these recognitions she received despite the fact that she is not an indigenous Palestinian. She functions from a small office in a rented municipality building on top of the most crowded vegetable market centre in El-Bireh-Ramallah, the centre of the West Bank under the name ASIR, the Arab Scientific Institute for Research and Transfer of Technology, which is an NGO with a multi-disciplinary board that she established with her Palestinian husband Professor Said A. Assaf in 1981. .

BAYOUMI ATTIA

RESOURCES TECHNOLOGY BUREAU AND ENGINEERING CONSULTANCY, EGYPT

Bayoumi Attia has over 30 years of experience in all aspects and phases of water resource planning investigations. His experience also includes significant expertise in hydrology, computer modeling, management information systems and decision support systems.

He has severed as project director for several complex water resource studies with critical sensitive public and environmental issues.

He has served in assisting the Minister of Ministry of Water Resources and Irrigation (MWRI) in all activities related to the planning of the water development projects in Egypt. This includes directing all planning efforts and providing the necessary supervisory control for overall plans and coordination to complete the projects on time and within the allocated budget.

To achieve his assignments *Mr. Attia* has worked directly with many of the official water concerned authorities, as well as non-government interest groups and members of the general public putting to the best use his skills of communication and negotiation.

He had a major contribution in preparing Egypt's Water Master Plan issued in 1981 and updated in 1985 (35 technical reports).

He took the responsibility of preparing the Water Policy of the Ministry of Water Resources and Irrigation towards the 21st Century (up to year 2017).

He was selected as a representative of Egypt in the confined international committee for the preparation of the ministerial declaration of the 2000's World Water Forum.

He was a member of the Egyptian official delegation who attended World Water Forum held in Hague (the Netherlands) in March 2000.

He has undertaken several consultancy tasks (shown in details under "Major Consulting Jobs" title) for both national (IDSC, EEAA, MALR/APRP) and international organizations (IBRD, FAO, ESCWA, USAID, IDRC).

ALI DARWISH

GREEN LINE ASSOCIATION, LEBANON

Ali Darwish, a key member in one Lebanon's environmental NGOs, has a broad knowledge of the major problems and constraints facing the natural resources in the country.

After earning his Ph.D. in Agricultural sciences, he returned to his country to pursue his career. Throughout his activities with the organisation Green Line he was responsible for the coordination of activities in a programme to develop a monitoring system for protected areas, which was extended to other areas.

In addition to his part-time work as the project manager for the National Action Programme to Combat Desertification with the Ministry of Agriculture and UNDP, He works as a freelance consultant for a number of international organisations.

Mr. Darwish is also active in a number of national and international panels and organisations, such as the International Planning Committee for Food Sovereignty and the World Conservation Union (IUCN).

BATIR WARDAM

IUCN REGIONAL WATER PROGRAMME IN WEST ASIA AND NORTH AFRICA, JORDAN

Batir M. Wardam is a Jordanian environmental researcher working currently in the IUCN regional Office for West, Central Asia and North Africa (WESCANA) in Amman. He holds a Master's Degree in Ecology, and has practical experiences as an environmental researcher and communicator with the World Bank, Global Environmental Facility (GEF), UNDP and IUCN projects in Jordan.

He has written 8 books and authored many articles and reports in environmental issues in Jordan. He has established the Environmental Watch Programme in Jordan and is currently a columnist in two Jordanian newspapers and some regional newspapers and magazines.

SIMONE KLAWITTER

POLICY ADVISOR, GERMANY

With more then 10 years experiences with many water agencies, Simone Klawitter, a German national, has served in various capacities and locations of the Water and Sanitation sector as policy advisor, consultant, academic and volunteer.

Recently her work focuses on water pricing, institutional aspects, good governance and human rights aspects in the water sector in the Middle East, East Europe and Germany on behalf of different governmental and non-governmental organizations.

From a background in Physics, Environmental Law and Economics, she is the author of several publications on different aspects of water and sanitation services as well as sustainable development.

SUPPLEMENT: Country Case Studies

Available at http://www.boell.de

Countries: Egypt, Jordan, Lebanon, Palestine

Heinrich Böll Foundation

The Heinrich Böll Foundation, affiliated with the Green Party and headquartered in the Hackesche Höfe in the heart of Berlin, is a legally independent political foundation working in the spirit of intellectual openness.

The Foundation's primary objective is to support political education both within Germany and abroad, thus promoting democratic involvement, socio-political activism, and cross-cultural understanding.

The Foundation also provides support for art and culture, science and research, and developmental cooperation. Its activities are guided by the fundamental political values of ecology, democracy, solidarity, and non-violence.

By way of its international collaboration with a large number of project partners – currently numbering about 200 projects in 60 countries – the Foundation aims to strengthen ecological and civil activism on a global level, to intensify the exchange of ideas and experiences, and to keep our sensibilities alert for change. The Heinrich Böll Foundation’s collaboration on sociopolitical education programs with its project partners abroad is on a long-term basis. Additional important instruments of international cooperation include visitor programs, which enhance the exchange of experiences and of political networking, as well as basic and advanced training programs for committed activists.

The Heinrich Böll Foundation has about 170 full-time employees as well as approximately 300 supporting members who provide both financial and non-material assistance.

Ralf Fücks, Barbara Unmüssig comprise the current Executive Board.

Two additional bodies of the Foundation's educational work are: the “Green Academy” and the “Feminist Institute”.

The Foundation currently maintains foreign and project offices in the USA and the Arab Middle East, in Bosnia-Herzegovina, Brazil, Cambodia, the Czech Republic, El Salvador, Israel, Kenya, Pakistan, Russia, South Africa, Thailand, Turkey, and an EU office in Brussels.

The Arab Middle East office of hbf opened in 1998; it is situated in Ramallah, Palestine. Its responsibilities encompass projects and programmes in Palestine, Egypt, Jordan, Lebanon, and Syria as well as in other Arab countries. Main areas of activity are democratisation, media, gender, culture, and youth-related issues. Due to the particular structures of societal and political power in most Arab countries, activities also focus on promoting NGOs and initiatives whose work fosters democratisation of thought and action. Another area of special interest is regional and international exchange, particularly with the EU and Germany.