

# Human Rights to Water in North Africa and the Middle East: What is New and What is Not; What is Important and What is Not

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Water has no conscience and no shame;  
Water thrives on water, is self-quenching.  
It often tastes of brine and ammonia,  
and always knows its way back home.  
(Gwendolyn MacEwan, 'Water', *The T. E. Lawrence Poems*, 1982)

**ABSTRACT** *Given the long history and the multiple interpretations of water rights in the Middle East and North Africa, it is difficult to say anything new without being provocative. The danger is that, in the effort to be provocative, it is easy to become frivolous. Fortunately, it is not possible to deal with any aspect of water, and certainly not human rights to water, without at least passing attention to hydrology and geography, and to economics and political science. Although none of these disciplines gives exact answers, taken together they do impose boundaries to any commentary. Even so, the comments below are tentative. They should be taken in the context of a 'think piece', designed to stimulate thinking rather than to provide final answers.*

## Introduction

The main point in this paper is that much of the commentary on human rights to water is trivial; it belabours the obvious, and ignores what is difficult. Although the situation is more or less the same the world over, the lack of attention to broader views of water rights is particularly troubling in the Middle East and North Africa (MENA). Nowhere else in the world is the competition for water so strong as it is in MENA. Average annual supply of water for the region as a whole is now well under 1500 m<sup>3</sup> per capita, and many nations fall below 500 m<sup>3</sup> (UNESCO, 2003). At those levels, chronic water scarcity can be expected unless water is managed carefully and the economy is directed to low-water-consuming

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activities. Today, most MENA nations still base their economies on irrigated agriculture, and their population growth is among the fastest in the world. Clearly, problems lie ahead.

### *Water Scarcity in MENA*

Water scarcity has of course always been part of MENA's history but as a chronic rather than a critical problem. Other parts of the world may be drier, but nations north of the Sahara and east of the Mediterranean differ from other dry regions in having a vibrant economy built on the adaptation of both rural and urban life (and international commerce) to that scarcity. For millennia the commons provided whatever water was needed, and traditional concepts of water rights guided the allocation and use of that water. The commons is no longer adequate. A decade ago Raskin *et al.* (1996) reported that Middle Eastern nations were already withdrawing nearly three-fifths of all available fresh water. More recent figures suggest that those data understated the problem. The Millennium Ecosystem Assessment reports that MENA nations are using 115% of total renewable runoff, and that one-third of withdrawals come from non-renewable sources (Millennium Ecosystem Assessment, 2005a). Water rights should be even more important in this situation, but, unfortunately, MENA nations are lagging, not leading, in adapting rights to modern conditions.

This paper will begin by dealing with two preliminary issues to focus the task:

- distinguish between water rights and water ethics;
- dismiss a pair of issues that have often deflected discussion of water rights into unproductive channels.

The paper will then open its two main sections that, first, protest exclusive focus on human rights for drinking water (or at most household uses) and, next, urge that the concept of water rights be extended to local agriculture and to the ecosystem. In the end, however, 'rights' are only as strong as the governments that support them. Therefore, the penultimate section turns to selected issues of governance for water rights. The final section provides a brief summary of key points, and goes on to ask whether establishing a formal human right to water will do much to improve human well-being.

### *Water Rights and Water Ethics*

As used here, 'water rights' mean entitlements—something that one gets (or should get) by legal authority. As such, a right must be limited and reasonable, and also politically acceptable for much if not all the population. A water ethic is much broader:

An ethic is a set or system of moral principles or values that guide the actions or decisions of an individual or group. It helps us determine what is acceptable conduct in a society and provides a basis for judging how to act rightly or justly. (Matthews *et al.*, 2007, p. 337)

One of the most famous ethical statements in the world is to treat your neighbour as you would treat yourself. This behavioural norm appears, in one form or another, in almost all religions. It is a worthy norm, but no one asserts it as a right. Rights are incorporated within ethics but they have to be much more limited in scope. They can be distinguished

in many ways, two of which must be highlighted:

- First, rights are, in some way, legally guaranteed whereas ethics are morally urged. Rights do not depend on ownership of property, which is quite a different issue. A water source may belong to one party, but another can still have a right to use some of the water.
- Second, trade-offs and qualifications apply to ethics, but not to rights. Or at most they apply only in extraordinary circumstances or for short periods of time. The claim of a human rights violation is a claim for redress, not for negotiations.

This paper considers water rights, not water ethics. Unfortunately, many people say ‘rights’ when they mean ‘ethics’. Therefore, it is worth digressing briefly to note that the topic of water ethics is growing in importance (Selborne, 2000; Priscoli *et al.*, 2004; Matthews *et al.*, 2007). Most of the better-known statements on water use, as with the four Dublin Principles, the World Water Vision for 2025, and UNESCO’s nine principles, go well beyond water rights and really present water ethics.

Returning to water rights, the useful overview of international documents on the subject by Nowlan (2004) shows that, until now, there has been no formal definition of a right to water:

Though it may seem logical that the right to water is an implicit part of other internationally agreed rights, such as the rights to food, health, and life itself, this human right has only recently been elaborated by the United Nations.

That elaboration came in November 2002 with *General Comment on the Right to Water* from the United Nations Committee on Economic, Social and Cultural Rights (a part of the UN Commission on Human Rights; published in January 2003). This document sets out a list of international standards and obligations relating to water. In effect, the Committee asserts that rights to water exist on the basis that:

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

The late arrival of an explicit statement on human rights to water does not mean that earlier implicit references should be ignored (Klawitter & Qazzaz, 2005). Although neither they nor the *General Comment* establish any legal right, and although they typically focus more on how to achieve rights than what the rights are, earlier work did leave a productive legacy. They are in part responsible for the United Nations Millennium Development Goals, and to a series of United Nations General Assembly resolutions relating to water, notably its December 2003 Resolution setting out 2005 to 2015 as the International Decade for Action: Water for Life (Salman, 2005).

‘Water rights’, as the term is used here, belong to people as individual human beings, as opposed to rights that accrue to them as citizens of a nation. National rights are in effect a definition of property rights, and they are almost always subject to negotiation. Ironically, human rights were first put onto the international agenda by the North as a way to argue for political rights for dissenters, but today they are more commonly put forward by the South as a way to protect itself from predatory northern or corporate practices.<sup>1</sup> In parallel, the discussion has shifted from violations of individual rights to violations of communal

or national rights. Indeed, it may be that it is just because of the attention devoted to defining national rights to water, or ‘rightful allocations’ as the term has come to be in Israeli–Palestinian affairs, that there has been so little real development in the concept of human rights to water. Or perhaps the international community does not often take note when violations of rights affect just a few people and only exerts itself when the rights of a sizeable collectivity are violated.

### *Two Unproductive Digressions*

Before looking at water rights directly, it is useful to dismiss two issues on which far too much time has been spent.

First, is water a human right or an economic commodity? The slogan ‘Water is Life’ is used in defence of the position that water is a right, an equity argument; the 4th Dublin Principle is cited in defence of the position that water is a commodity, an efficiency argument. Neither argument is complete, nor does either encompass the full meaning of the slogan or the principle. Water, always and everywhere, has characteristics of a commodity, and in some (relatively limited) situations it also has characteristics of a right. Even if it is accepted that everyone has a right to a set quantity of water free of charge, some organization or agency has to find, treat and transport that water, and presumably those tasks should be accomplished within a least-cost framework, which gives the water most of the characteristics of commodity. As Conca (2005) states in his review article on global water issues, the human rights approach does not by itself “define a proper balance between efficiency and equity” (p. 80).

Rather than treating rights and commodities as irreconcilable alternatives, it is better to view them as a spectrum from drinking water at one end to, say, golf courses at the other; characteristics of rights dominate at one end, and characteristics of commodity exclusively at the other. (Sitting awkwardly in between are traditional uses that give a perceived notion of rights to those who depend on the water.) More correctly, rights should be viewed as a different kind of entitlement from a commodity. The more appropriate comparison is between common pool resources in which everyone shares, as opposed to commodities, which are subject to exclusive use.<sup>2</sup>

Second, what is the relevance of privatization of water supply to the discussion of water as a human right? No relevance at all. More accurately, it has no relevance as long as the water utility operates within a framework of close government control, more like a corporatized public utility (Bakker & Cameron, 2002). Government control is essential because a reticulated water system is a natural monopoly, and human rights can then be established to any degree that the government wants. It is just this sort of governance framework that characterizes the water management contracts in Jordan or water concessions in Morocco and Tunisia. This is not meant as an argument in favour of privatization of water, which is a limited approach that can benefit society only in special circumstances (Gleick *et al.*, 2002; Page & Bakker, 2005). Rather, it simply contradicts the position that all forms of privatization are inherently fatal to the concept of human rights to water.

### **What is Old and Trivial**

This section begins from the position that almost all discussion of the human right to water is trivial. Why? For the reason that it focuses on ‘drinking water’, by which most people

mean household water for drinking, cooking, washing and sanitation, something that hardly needs discussion. For example, the otherwise commendable UN Committee report limits the right to water as follows:

The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses. An adequate amount of safe water is necessary to prevent death from dehydration, reduce the risk of water-related disease and provide for consumption, cooking, personal and domestic hygienic requirements. (Article I.2)

A review of the large number of previous UN resolutions on water shows that the focus has remained primarily on household water or, at best, water and sanitation (Salman, 2005). Similarly, among the plethora of NGO documents urging that a human right to water be formally established, few are any broader than this. (See for example the website [www.righttowater.org.uk](http://www.righttowater.org.uk).) A partial exception is offered by IUCN's exploration of the issue (Scanlon *et al.*, 2004).

### *Who is Arguing?*

The statements above should not be misunderstood. The goal of human rights to household water is far from trivial. There is a well-known link between household water security, human health, and poverty alleviation. Rather, *it is the argument that is trivial* because very few people deny the right. Only the most right-wing, market-obsessed economists argue that access to basic household water should be mediated exclusively through the price mechanism. On the contrary, many people argue that the right to household water is now enforced by what is called 'customary' or 'soft' law (Abu-Eid, 2007, this volume).

Admittedly, many governments fail miserably in supporting that right, particularly for vulnerable groups in society that typically have a problem exercising any of their rights. However, most if not all governments, and even some corporations in the water supply sector, agree that the right exists. This means that the argument should shift from principle to practice, which does not make it any easier but which does change its nature. Few water supply programs, whether managed by governmental or non-governmental organizations, are linked to the UN-defined human rights to water, but they serve similar goals. (EMPOWERS, the organization described by Laban (2007) in this volume, is an exception as it is explicitly linked to human rights.) Putting the point bluntly, except for the very poorest nations in the world and for those constrained by military occupation, any government that does not provide the 25 to 50 litres of water per person-day<sup>3</sup> commonly deemed necessary for a minimal quality of life is incompetent or corrupt. The amounts of water involved in meeting this goal are quite small and, compared with other governmental tasks, the costs are modest.

In most cases, the more difficult issues stem not from providing adequate quantities of water but meeting other components of the right. For example, a right to drinking water implies that the water can be obtained without personal danger, a condition of particular importance to women, and that it is also available to elderly and infirm people, cohorts that are growing in number in the developing world (Biswas *et al.*, 2005). If, as argued below, the human right to water includes water to grow food, timing of supply may be more important than absolute quantity. Water delivered at the end of the growing season is of little value

to a farmer. Finally, the water must be affordable, which does not necessarily mean at zero price. For many reasons it is advisable to charge at least a nominal price for water, and all evidence indicates that people are willing to pay for clean water. Only those people living in extreme poverty need be provided with water free of charge.

### *The Concept is Old in MENA*

There is nothing new about the concept of water as a human right. It goes back at least as far as the Code of Hammurabi in Babylon almost four millennia ago. Clear rules about rights are found in the Hebrew Bible and followed up in Jewish religious law (*Halachah*), just as they are in the Koran and followed up in Islamic religious law (*Sha'aria*) (Hirsch, 1959). The two legal systems exhibit many parallel clauses. Both give rights to water for drinking above all else, first for people and then for domestic animals; and both mandate offering water to outsiders or visitors, even if they are less than friendly. Thereafter, the two codes diverge; the third priority for water in *Halachah* goes to clothes washing (that is, domestic chores), but in *Sha'aria* to irrigation. The Jerusalem Talmud was written in the highlands of what is now Israel and Palestine, where irrigation was not needed; *Sha'aria* was written in the broad lowlands where irrigation was essential. Christian religions do not have 'law' in the same way as Islam and Judaism do, but their principles in support of equity and justice would come to much the same conclusions.

The surprising thing is not that water rights emerged so early in the Middle East and North Africa but that, for many years, those rights were accepted. Even in times of war, the law indicated that cities under siege were to be provided with some water. Of course, no city was entirely sure that the rule would be followed, so they built water systems that were less vulnerable in wartime. One example is the tunnel that took advantage of karstic passages to redirect the flow of the Gihon spring located outside Jerusalem back under the walls and into the city. Another example is the use of animal skins to cover submarine springs located just offshore at Sor (Tyre) in Lebanon, and to direct the water back into the city. However, in general, religious law helped to mitigate the suffering of cities under siege and, as a result, most passages written from such cities refer to starvation, not to thirst.

### **What is New and Exciting**

If a discussion of human rights to household water hardly needs justification in MENA, what are the issues that are not trivial yet typically neglected in discussions of human rights to water? Two issues seem particularly important, and both involve a broadening of the concept. This section will focus on them and suggest some ways—by no means the only ones—to make them effective:

- the right to food, and therefore the water to grow food;
- the right to live in a viable environment, and therefore the water to support the ecosystem.

### *Human Right to Water to Grow Food*

It is well known that the largest use of water by far is water to grow food. If anything, current data understate the proportion of water going to grow food because many shallow wells and small springs are not captured by the statistics. It is also well known that

a minimally balanced diet is essential for life, and a well balanced diet is essential for a healthy life. Given these facts, it is surprising that human rights to water have all but ignored the requirements for food. One of the very few direct applications of the concept to food is an Israeli–Palestinian study (Assaf *et al.*, 1993) that added to household requirements 25 m<sup>3</sup> per person-year—enough for a sizeable home garden. (Even this study was put forward as a way of determining national allocations, not individual rights.)

It is the contention of this paper that everyone has a right, in the sense defined above, to a sufficient quantity of water of modest quality to enable the growing of enough nutritious food for a healthy life. Home gardens are very efficient ways to grow food, even though they may not be well adapted to the supermarket model of food distribution. The water is used more intensively and husbanded more carefully than in any other form of agriculture. However, in contrast to household water requirements, which do not vary much from place to place, caution is required in applying the principle of providing water for gardening. For one thing, the right would logically go to the household, not the individual. In addition, at least two further adjustments are required.

First, quantities of water will vary with climate; more water will be part of the human right in arid areas, less in humid areas. Water needs will also vary with soil type and slope, food preferences, and other factors, but as a first (and perhaps sufficient) approximation, rights can be defined solely in terms of average annual rainfall. In a still far from complete study, the amounts of water and land that would be required to grow enough food for a balanced diet on level or gently sloping land are being calculated in three climatic zones: 100 mm, 500 mm and 1000 mm of rain per year. In each case, one location has been selected to permit definition of a specific mix of crops: the 100 mm site is in Mexico; the 500 mm site in the West Bank (Palestine); and the 1000 mm site in West Africa. Initial results should be available in approximately a year, provided some difficult issues can be overcome, for example, how to take account of re-use of waste water; and what levels of water-use efficiency to assume. If those questions can be resolved, it should be possible to determine quantities that could be adopted as the human right to water for growing food.

Second, the above calculation is directly applicable to farm families, perhaps to all rural and even peri-urban households. But what about people living in urban areas? Even where urban agriculture is widespread, only a small proportion of the urban population grows its own food. Three approaches seem possible. The economic approach would give everyone the same right to water and allow a secondary market to develop so that those people who do not want to grow food can sell water to those who do. The direct allocation approach would give all the additional water rights to farmers with the expectation that they will grow food for many more people than just their own families. Finally, governments could assign this water to themselves and use it as a reserve for dispersal when and where it is needed, perhaps in times of drought, perhaps for agricultural experiment stations, etc.

Clearly, the notion of a human right to water for growing food is more complex than that of a right to household water. Even so, it seems to be an appropriate standard to apply in principle, particularly as, in many developing societies, farmers are at the bottom of the economic ladder. Indeed, the whole objective is to provide a kind of water tenure for small-scale and family farming, not to subsidize commercial agriculture (which, as the name implies, should operate on market principles).

Because the amounts of water for household use are so small, direct conflict between water rights for household use and water rights for home gardens and small farms should

be rare—Gaza may be one exception to this generalization—and even these cases can be mitigated by re-use of grey water for irrigation.

### *Human Right to Water to Sustain Ecological Services*

The range of services provided to humans by our ecosystems is enormous (Millennium Ecosystem Assessment, 2005b; Postel & Thompson, 2005). We are beginning to have estimates of the volume of water that must be left in the ecosystem if it is to remain viable (Postel & Richter, 2003; Smakhtin *et al.*, 2004), but we are a long way from calculating the value of that water. Many ecosystem services have direct human benefits, as with fishing and transportation; others have indirect benefits such as with the support of recreation and waste dilution; and still others, as with the maintenance of habitat and flow stabilization, are all but incalculable (except by the use of surrogates and other economic techniques that identify minimum but not total values). However, even approximate numbers suggest that intact ecosystems commonly provide economic values for society well above the private values achieved after the land is converted to purportedly ‘more productive uses’ (Millennium Ecosystem Assessment, 2005b; Katz, 2006).

To assert a human right to ecological water almost seems contradictory. How can humans have a right to water that they do not themselves use or, except in the broadest sense, manage? The answer begins from another point made by Conca (2005, p. 74): “. . . rivers must be understood as elements of broader and more complex socioecological systems”. Once all but totally neglected, it is increasingly recognized by most analysts (although not so many decision makers) that the ecological demand for water is equally as important as the water required for direct consumption. In the new constitution for South Africa, ecological water is given standing second only to that for direct consumption by people. Uniquely in the Middle East, Israel has amended its 1959 water law “to officially recognize nature as a beneficial use of water and to require the National Water Commission to submit yearly reports to parliament listing the amount and quality of water allocated for ecosystem purposes” (Katz, 2006, p. 35). Jordan, Morocco, Tunisia and Turkey have all adjusted at least one water control project to protect nature reserves or increase flows into lakes and wetlands (Katz, 2006; The Nature Conservancy, 2006).

In contrast to all household water and at least some agricultural water, the human right to ecological water cannot be distributed to individuals. The ecosystem is a commons, and everyone shares in the benefits of a healthy ecosystem. (Exceptions, as with exclusive fishing areas, are not serious enough to contradict the generalization.) Therefore, governments need to experiment with the new methods for calculating the amount of water that should remain *in situ*, and adopt some modality—perhaps a quasi-independent agency—that will define maximum rates of withdrawal for each river, lake, wetland, aquifer and estuary, with appropriate adjustments for time of year. Ideally, the same modality would develop models that indicate how releases back into the ecosystem could be made so that they emulate natural flow conditions as closely as possible.

Of course, decisions about the allocation of water to the natural environment will not be easy, particularly in drier nations that are struggling to feed their own populations and to approach full employment. Nevertheless, they must be made, even if they are approximate and partial. The short-term gains from withdrawing too much of the water required by ecosystems (or withdrawing it too frequently) will soon be lost to long-term, and perhaps permanent, damage to the very services that support the population and their livelihoods.

In most cases, those who suffer most will be low-income families, women and marginalized groups. Water for the ecosystem is just as critical to their rights to a livelihood as is their right to direct consumption of water in the household. Perhaps, as Nowlan (2004) suggests, we need parallel development of treaties on human rights and on environment.

### *Some Other Possible Human Rights to Water*

Are there other areas of human activity that might also confer a right to water? It is hard to think in terms of any kind of right for industrial uses of water. Industrial uses should pay full costs for water (ideally full value<sup>4</sup>), and they should have to compete for water in whatever market or political process operates in that jurisdiction. The same is true of commercial, institutional and most municipal uses, as with hotels, stores and office buildings. Some users, perhaps hospitals and schools, perhaps even urban parks, might be deemed so important that they will receive water at a subsidized rate, but that is different from giving them a right to the water.

However, it is possible to think of exceptions to the preceding generalizations. Suppose some group or some community has been using water for generations in a traditional way, perhaps for dying cloth or making beer. Does this create an ‘acquired right’ (as it is called in some legal codes) to continue using water in that way? It probably does, although perhaps it is a right that could be transferred to other users or to the commons after appropriate compensation. Does that acquired right remain in place if production shifts from traditional to modern methods? Possibly, but only for a limited period of time. Much the same reasoning could be applied to traditional uses of water *in situ*, notably fishing. Conferring such a right on fishers would certainly raise interesting issues, for it would imply limitations to changes of water flows and of water quality. All of these issues need more thought and some experimentation.

Despite possible exceptions, the general point is that industrial, commercial, institutional and municipal uses of water do not give rise to wide concern about *human* rights to water. Although these sectors are growing rapidly in developing nations, for the most part they represent the modern portions of their society. As such, they should be expected to treat water as an economic input, not as a human right.

### **Governance of Human Rights to Water**

The idea of a human right to drinking water has enormous political and popular support around the world—one of those rare cases where NGOs and international agencies seem to be in agreement. As long as we stay at the level of principles and concepts, we can probably come to an agreement on defining those rights in terms of a few tens of litres per day of water of potable quality. However, human rights of any kind are only as good as the word of governments and their approach to governance. It is in these areas that it will be much more difficult to reach agreement.

Disagreement about governance is not only to be expected; in part, it can be applauded. There are many ways in which human rights to water can be made effective and, as long as similar results are achieved, there is no reason to expect or demand identical methods in different nations with different ecologies, different traditions and different government structures. However, more of the disagreement arises either because governments do not fully understand what the concept of rights implies, or they have no intention of granting

rights in practice, at least not to some groups or some regions within the nation. To choose one case that has been publicized due to a vigorous non-governmental movement, some 60 000 Bedouin, living in Israel, get no piped water from the otherwise high coverage of the Israeli distribution system because they live in unrecognized villages (Keinan, 2005). Likewise, Houdret (2005) explores how rural areas and women are systematically discriminated against in Moroccan water policy. Similar cases can be found in other MENA nations.

Two of the starting points for governance in delivering rights are as follows:

- First, the role of government is critical. The senior level of government must accept its responsibility to guarantee rights, and lower levels their responsibility to deliver rights, to everyone under their jurisdiction. Note that ‘everyone’ is not restricted to citizens but includes any resident.
- Second, it is essential that governments accept that the rationale for a human right lies in the search for equity, not for efficiency. Efficiency is of course important, but equity is the decisive criterion.

#### *Wider Public Participation as a Right*

As indicated above, neither the idea nor the application of water rights is new. Traditional systems for allocating water have a strong component of rights. Those rights can be extraordinarily complex and sophisticated. Water from wells and springs can be divided in many ways, with priorities that vary by time of day, time of year, personal or ethnic relationships, and that persist even after a central government asserts its control over water (Trottier, 1999). Governments must be cautious in treading on traditional concepts of water rights, and interfere only if they appear to be grossly inequitable.

What is new is the idea that those people to whom rights to water are granted should have a meaningful role in decision making. The right may be nominally satisfied with so many litres per day of water at acceptable quality, but it will be truncated if it does not also incorporate the right to participate democratically in the choices made about when and how the water is delivered. Few of the documents on human rights to water recognize this dimension, although, ironically, some UN documents have suggested that lack of participation explains why so many goals for household water have not been achieved (Salman, 2005). One of the few documents to specify participation is the recent *Guide on Water as a Human Right* from the World Health Organization (WHO), which states that, once established, “Communities and vulnerable groups will be empowered to take part in decision-making processes” (WHO, 2003, p. 9). WHO is probably over-optimistic. The fight for empowerment will have to be fought in addition to the fight to obtain rights. Public participation with respect to water is still at an exploratory stage (Kontogianni *et al.*, 2005; Warner, 2006).

Water users associations offer one example of the devolvement of decision-making powers, even in nations where participation is rare in other aspects of life. Water users associations have evolved in many parts of the world as alternatives to central management for the delivery of water to local constituencies (Sabbah, 2001; Attia, 2003). Typically in MENA nations, they are mandated to manage tertiary canals in regional irrigation systems. Once promoted largely by NGOs, governments have come to recognize the virtue of water users associations because local management turns out to be more equitable in water use and more efficient in pumping costs than top-down systems organized by government officials

(Rosegrant & Ringler, 2000; Brooks *et al.*, 2007; Attia, 2003). Another gain is that women commonly report that they get a better hearing when there is a formal process for participation in decisions about water use (Brooks, 2002; Singh *et al.*, 2005).

Of course, public participation does not eliminate controversy (Matthews *et al.*, 2007; Warner, 2006). If anything, it increases the difficulty of reaching decisions. There are real differences in the value attached to water between urban and rural people, between farmers and pastoralists, between farmers at the head and farmers at the tail of an irrigation canal. Nor, sadly, does public participation end ethnic, gender and other conflicts, although experience shows that the absence of participation will probably intensify conflict. Even where institutions encourage participation, “power differences will continue to make themselves felt, and some groups will find it more profitable to work around multi-stakeholder processes” (Warner *et al.*, 2006, p. 7). Evidence is strong that the poor, and indeed all marginalized groups, will get full rights only when programmes are explicitly oriented to their benefit (Van Koppen, 1999; Chancellor *et al.*, 2003).

There is one caution: the focus of this workshop is the human right to water. There are many other closely related human rights. It is hard to take advantage of the human right to water unless the human rights to food and to health are also effective. There is growing pressure to bring these interlinked rights together and to treat them as a bundle. That approach is questionable. Over the past few decades the focus on the rights of women was diverted from its main objectives by bringing it within the broader perspective of gender. Gender is an instructive concept, but not the same as women’s rights. It is probably better not only to keep rights to water separate from rights to food and to health, but also to keep rights to drinking water separate from rights to water for growing food or for protecting the ecology. Only then will goals be clear and monitoring will have a chance to identify cause and effect.

### *Research and Rights to Water*

Finally, research is also a part of governance. A substantial research agenda could be created around human rights to water, and an even larger one around ethical standards for water use. The bulk of the funding should go toward applied research: less money on the concept of the human right to water, more money on how that right can be delivered in different nations, for vulnerable groups, in rural and urban areas, etc. It is not difficult to suggest examples of research needed:

- Despite all the emphasis on household water, there is little evidence about the relationship between additional water and improvements in human health. Presumably it is positive but convex upward so that, after some point, additional water does not yield significant further gains. Moreover, perverse effects can create a wedge between intended and actual benefits from new water supply systems (Biswas *et al.*, 2005). The research problems are, first, to quantify the relationship between the use of water supply and sanitation services and human health and, second, to determine what is needed to promote greater use of those services.<sup>5</sup>
- Some policy analysts have suggested that it would be better to ensure access to water than to provide a certain quantity of water to each family. How might this approach work, and would it be effective?
- Pricing of water is badly misunderstood, particularly by NGOs, and it is worth exploring how different pricing systems can promote equity as well as efficiency

(Brooks *et al.*, 2007). Increasing block rates are generally equitable, but they can penalize extended families living under one roof or people engaged in urban agriculture. Moreover, it is increasingly important to find imaginative pricing schemes to ensure that human wastewater, both grey and black, is made available for beneficial uses. Perhaps householders could receive a credit on their water bills if their wastewater is delivered in a safe manner.

- Research on water users associations needs to explore ways to extend the approach from local canals, where all the stakeholders are farmers, typically from one ethnic group, to regional feeder canals, where there are a range of stakeholders and several ethnic groups (Brooks *et al.*, 2007).
- It would also be worth looking at traditional systems for allocating and distributing water, particularly in times of drought; they may do as well or better than ‘modern’ rules. In too many cases today, governments and power elites, together with the pressure of regional markets and even globalization, encroach on and ultimately destroy local rights of water access and use. (For a good example in another region, see Cremers *et al.*, 2005.) Research is needed to document potential losses and, ideally, to avoid ill-considered policy.

The test of applied research is of course not the publications record but the impact on policy. If that means that researchers need to get involved with NGOs or with advocacy campaigns, so be it.

## Conclusion

This paper has argued three main points as follows:

- (1) It is not necessary to prolong discussion of whether drinking and other household water is a human right. Although not defined as such in formal international law, it is widely accepted that every human being deserves a quantity of water, part of it potable in quality, adequate to live in dignity. This ‘soft law’ on human rights to household water is so widely accepted that any effort to enshrine a formal United Nations declaration is likely to be counterproductive. The very effort could be taken as evidence that such a right does not currently exist. It may be better simply to operate as if it does.
- (2) Effort should now be directed to enlarging the concept of human rights to water in at least two new directions: first, to ensure that enough water is made available for small farmers and householders to grow the food that human beings must ingest directly to live; second, to ensure that enough water is left in the ecosystems so that they remain viable and contribute fully, if indirectly, to human life and to human livelihoods.
- (3) Finally, if human rights to water are to be more than statements on paper, attention needs to be devoted to the governance of water in general and to the mechanisms for delivery of those human rights in particular. Notably, rights must be defined not only as so much water at such quality but also in the ability to participate in decisions about the delivery of that right.

Gains on any of these three points would represent an advance in the equity with which fresh water is distributed around the world. They would also probably make a sizeable

contribution to poverty alleviation. Finally, they have the potential to place MENA nations once again in a global leadership position in developing and applying the concept of human rights to water.

At least, that is the optimistic view. The sceptic might respond: Would they really do all that? And he or she would be right to express such scepticism. We do not have a lot of evidence to state with confidence that it makes a difference to human beings, to communities and to ecosystems whether water is or is not assumed or declared to be a human right. Perhaps it is only a matter of faith that some additional nations will act on the basis of the expression (or declaration) of such rights to increase services to previously less well-supplied people or groups or regions. Operating on faith for such an important issue is hardly satisfactory.

The final point is to emphasize that research is vital to search for evidence as to whether widely supported declarations about human rights to natural resources do yield some significant effect. If we can show such an effect, then the research must look more deeply to determine what were the operative clauses and conditions. What was it that made one expression or declaration more (or less) effective than another? Why was it that one expression or declaration caught the attention of policy makers or the public and another did not.

Only when we know how it is that human rights come to be adopted as policy and implemented as practice by governments shall we really be able to say *with confidence* that it is really worth fighting to establish a human right. Only then shall we be able to go beyond a 'general comment' to an effective lever to promote action.

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## Notes

1. Credit is due to Professor Stuart Schoenfeld of Glendon College, York University, for this observation.
2. Credit is due to Professor Karen Bakker, University of British Columbia, for this distinction. She has a forthcoming paper in *Antipodes* on the issue.
3. The former figure appears in the Constitution of South Africa; the latter is proposed in an article by Gleick (2000); others have suggested 100 litres per person-day, but that figure is only applicable in regions where it is not likely necessary to assert a right for water. In any event, none of these numbers is based on extensive research.
4. The differences between cost and value as a means of determining price are important but too complex to go into in this paper.
5. An anonymous reviewer deserves credit for suggesting this line of research.

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