Water in the Middle East: The Need for Cooperation

Mariona Rico
Executive Advisor to the Director General
European Institute of the Mediterranean (IEMed), Barcelona

Environmental Scarcity

Recent times have registered a massive the demand for natural resources on our planet. Although it is difficult to foresee with total certainty when these resources will reach a level of severe scarcity, it is quite clear that the world reserves of some of the most basic resources for our existence are diminishing at a fast rate, in some cases even exceeding the capacity of the planet for the exploitation of new sources or limiting the development of materials that could substitute the scarce resources.[1]

Analysts coincide in confirming that the planet is currently in a situation of environmental scarcity. This scarcity is determined by three main factors:[2]

1. A decrease in the supply of natural resources, which is the result of their depletion and degradation, as a consequence of their physical vulnerability, the rise in the population consuming them and the technologies and practices of this population.
2. An increase in the demand, resulting from population growth and progressive changes in consumer habits.
3. A structural scarcity residing in the unequal distribution of wealth and power. The figures reflect this inequality regarding access to and use of natural resources: 80% of these assets are controlled by 20% of the world's population.

In this context of increasing scarcity, the risk of conflicts for access to natural resources is of growing concern. This is due, apart from the existence of large pockets of poverty, above all to the fact that a large part of the natural resources (or resource deposits) are shared by two or more nations or are located in conflictive border areas. While states prefer to depend only on the resources found within their borders, it is also true that, when faced with a situation of exhaustion, the normal reaction of governments will be to seek a way of maximising their access to reserves, with the consequent risk of causing a conflict with neighbouring countries. These conflicts, probable even in cases in which the states involved maintain friendly relations, may become explosive in the context of pre-existing hostilities as is the case of the Middle East.[3]

Therefore, the threat of conflicts over natural resources – as a result of the power and wellbeing the latter provide – has become one of the most characteristic traits of the world arena. Often combined with other antagonisms which may be ideological, political, economic or religious, these types of conflict have become a significant and growing threat to peace and stability in many areas of the world. So-called ecological security has thus come to be included in the concept of global security. By the same token, in many states, the protection of oil and gas deposits is a priority in national strategic plans. In other cases, the issue is not oil but water. Many countries in the Middle East and North Africa (MENA) region suffer from

[1] Klare, Michael T., *Resource Wars: The New Landscape of Global Conflict*, Henry Holt and Company LCC, New York, 2001.
[2] Homer-Dixon, Thomas E., "La escasez medioambiental, la violencia masiva y los límites del ingenio", in Mariano Aguirre (Ed.), *Las guerras modernas: pobreza, recursos, religión. Anuario CIP 1997*, Icaria/CIP, Barcelona, 1997, pp. 39-56.
[3] Klare, Michael T., Op. Cit.

a dearth of fresh water to meet the growing demand of their populations; hence any threat to the existing reserves becomes a matter of national security.

However, regarding the possibility of environmental conflicts leading to violent conflict, experts agree that there are few cases to show that environmental scarcity would cause significant interstate wars;[4] this is primarily due to the difference between renewable and non-renewable resources. Hence, it is difficult to find examples of wars that have been chiefly caused by scarcity of renewable resources (although such scarcity may indeed contribute to aggravating already existing conflicts) since modern states cannot, for instance, quickly and easily turn the agricultural land and forests of a neighbouring state into an increase in their own state power, whereas they are able to use non-renewable resources (such as oil) quickly.

The exception could possibly be in the case of water, especially fresh water, since sufficient supplies of water are necessary for all aspects of national economic activity and wealthy countries are as dependent on it as poor countries (sometimes even more so). Furthermore, the growing use of water means that some reserves are being used at a rate exceeding the rate of the resource's renewal, which in practice equates it to a non-renewable resource.[5]

Water Scarcity: A Source of Conflict or Cooperation?

Water scarcity can be considered one of the central elements of the environmental crisis that the planet is experiencing. Water is one of the staples of life. It goes beyond economic and social development and environmental issues and, most importantly, it has no substitute. Along with food, access to water should be considered a basic human right: water has a bearing on factors such as wellbeing and human dignity and therefore cannot be considered as just another economic asset. Surprisingly, it was not until the 28 July 2010 that the General Assembly of the United Nations declared access to drinking water and basic sanitation as a basic human right. It is a historic resolution that represents a step forward in achieving the Millennium Development Goals, which include the goal of halving the proportion of people without access to safe water sources by 2015.[6]

The so-called water crisis is one of the main challenges of the 21st century. Even though it is a renewable resource, the fact is that 97.5% of the planet's water is too salty for human consumption and only 0.26% of fresh water can be easily reached.[7] The rest is found in huge masses of ice in the Antarctic and Greenland. It is therefore quite clear that the fresh water available to the planet is a limited and vulnerable resource. Moreover, the scarcity is increasing due to demographic growth, inefficiencies in its administration and climate change. Whereas in the 20th century the population of the planet doubled, the demand for water multiplied sixfold, although the supply available has remained nearly the same throughout this period. Beyond the clear impact of demographic growth, the demand for water has also increased as a result of industrial development, the dependence of agriculture on irrigation, massive urbanisation and a growing standard of living resulting from progress in developing countries.

In this context, due to the combination of increasing demand and decreasing supply of water, more and more countries are confronted with serious problems arising from scarcity. According to United Nations estimates, by 2025, approximately two-thirds of the world's population will be living in areas facing moderate to severe water stress. Under current behavioural patterns, if the world population continues growing at the current rate, all regions in the world will suffer this problem by 2050. Hence, the 21st century is likely to be an era of water tension and water scarcity, and regions such as the Middle East or South and Central Asia are among the most vulnerable. In these regions, water is becoming a matter of *high politics,* and the probability of situations of conflict regarding water is increasing.

For this reason, and considering that environmental scarcity can be considered a source of conflict, it makes sense to analyse water scarcity in the same way as any other scarce, non-renewable resource. For centuries, war strategies have been associated with the protection and destruction of vital water sys-

[4] Idea developed by Thomas E. Homer-Dixon and Peter H. Gleick.

[5] Gleick, Peter H., "Fresh Water: A Source of Conflict or Cooperation? A Survey of Present Developments", in Bächler, Günther and Spillman, Kurt R. (Eds.), *Environmental Degradation as a Cause of War*, Vol. III, ENCOP Band, Verlag Rüegger, 1996.

[6] General Assembly of the United Nations, A/64/L.63/Rev.1*, available at: www.unesco.org/water/wwap/news/archives/UNDecWaterHR_EN.pdf

[7] http://webworld.unesco.org/water/ihp/publications/waterway/webpc/definition.html

TOWARDS A COMMUNITY OF WATER AND ENERGY IN THE MIDDLE EAST

Background

The European Institute of the Mediterranean (IEMed) and the Toledo International Centre for Peace (CITpax) have collaborated in developing the initiative "Towards a Community of Water and Energy in the Middle East." The initiative was conceived during a meeting on water cooperation in the region held in Saragossa in September 2008 and the initiative itself was established during a seminar on this issue held in Barcelona, Spain, on 11-12 May 2009. The seminar was led by Munther J. Haddadin, former Jordanian Minister of Water and Irrigation, in official representation of HRH Prince El Hassan bin Talal of Jordan. Participants included governmental and expert managers in the fields of water and energy from Spain, Palestine, Jordan, Egypt, Syria and Lebanon.

Concept and Vision

The concept of developing a Community of Water and Energy in the Middle East was inspired by the encouraging example of Europe. Six countries with different languages and ethnicities, once in profound conflict, created the European Community of Coal and Steel in 1951, which subsequently evolved, through successive stages, into the European Union.
As scarce and essential resources in the Middle East, water and energy can play a similar role to the one that coal and steel did in the European process of cooperation, development and integration. Through the regional management of these resources, peoples and governments in the Middle East can begin to look beyond a history of friction and border disputes towards the greater goal of what is constructive for the region as a whole.

Objectives

The primary objective of this initiative is to "define the challenges the Middle East is facing and is likely to face in the fields of water and energy economically, socially, environmentally and politically, and chart ways of cooperation to pre-empt adverse impacts and to face these challenges collectively."
Secondary objectives include i) the establishment of practical projects involving water and energy in the region with direct benefits to citizens and with the active contribution of state and non-state actors, and ii) the establishment of a regional process to guide, consult and coordinate the initiative and serve as the ¨software¨ for future expansion of the idea within and between countries.

The Road Forward

The initiative will centre on building practical projects relating to water and energy innovation and management issues. The process will involve meetings and consultation among the various participants and organizers and the development of a database of information and knowledge on the issue, including past experience in similar undertakings.

tems. Fresh water has been present in many conflicts between countries. Water may be the cause, means – either offensive or defensive – or end of a conflict. However, although history demonstrates that competition for water is not a new problem, the challenge arising in dealing with water conflicts today is its scarcity; a scarcity that leads states to consider the struggle for water supply sources as a legitimate function of national security.
The threat that water scarcity represents in terms of security is clear if we consider the fact that in regions suffering scarcity, the resources are normally shared by two or more countries. The 263 cross-border basins and lakes in the world are spread through the territories of 145 countries; similarly, large deposits of fresh water silently travel across borders in underground aquifers. It is thus no coincidence that the 2009 edition of World Water Day,[8] held every 22 March since 1993, focused on transboundary water resources.
Considering that all countries will attempt to satisfy their water needs in a context of limited water resources, many analysts predict a future of conflicts. However, not all tensions arising from water resources lead to violent conflict. Most of them lead to political confrontations that are settled via negotiation, discussion and peaceful resolutions. Over the past 60 years, more than 200 international agreements have been made relating to water, and only 37 cases have been reported of the use of violence between States in water-related issues. In any case, the fact that water has become a resource of increasing scarcity in certain regions of the world means that the "blue gold" has become a crucial element for development and national security.
In this context, and having established the fact that conflicts for water will increase due to the trend of growing demand and an increasingly limited supply, one of the possible ways to reduce the risks of water conflicts is the development of international water regulations. In the developed countries there is now some regulation in environmental matters but the situation is quite different in the developing countries. In the international sphere the difficulties are even greater. Although certain attempts have been made to develop jointly agreed international legisla-

[8] More information at: www.unwater.org/wwd09/flashindex.html

tion to protect resources, they have focused on limiting ecological damage resulting from conflicts, wars or natural or man-made disasters. It is therefore necessary to develop preventive legal instruments, though the evidence is that to date, no regulations on water have been developed that are acceptable to all nations; achieving these types of agreements is difficult due to the complexities of interstate politics, national practices and other political and social factors.

Along with international regulation, regional and cross-border cooperation represent another alternative capable of staving off potential conflicts arising from water scarcity

With this in mind, it should be mentioned that since the early sixties, a series of international conferences about development and the environment have focused on the subject of natural resources, including water. Although the documents resulting from the conferences are not legally binding, they show the international community's growing concern with the issue. Among them feature the Helsinki Rules of 1966 and, above all, the Convention on the Law of the Non-Navigational Uses of International Watercourses of 21 May 1997.[9] Article 10 of the latter text establishes that, in the case of conflict for water resources in international watercourses, special regard must be given to the "requirements of vital human needs". This convention is still not in force since very few States have actually ratified it. Despite the important moral strength of these international treaties, the fact is that in the case of conflict, there is still an extremely serious lack of regulation, enabling the stronger states to impose their national interests to the detriment of their neighbours, which may prove disastrous for the more vulnerable groups.

Along with international regulation, regional and cross-border cooperation represent another alternative capable of staving off potential conflicts arising from water scarcity. The mechanisms of cooperative water management could help in preventing conflicts and solving complex confrontations, provided all the parties involved are present and have the means to negotiate under equal conditions. Assuming there are common interests, cooperative management can decrease potential confrontations and increase the wellbeing of the countries involved and their populations by:[10]

1. Providing a forum for joint negotiation, thus ensuring that all interested parties potentially in conflict are taken into account in the decision-making process;
2. Allowing consideration of the different perspectives and interests in order to discover new management options and provide solution beneficial to all parties;
3. Allowing decisions more acceptable to all parties (second-best) that, even if the optimum decision for a certain party (first-best) is ruled out, are certainly better than the initial situation.
4. Encouraging acceptance and trust through collaboration and joint research of data, factors that help lay the foundations for future cooperation leading to agreements of a broader scope.

Water represents an interesting means of fostering dialogue, trust, cooperation and – very possibly – preventing confrontation, even in particularly conflictive basins. In regions with a high level of political instability such as the Middle East, water may be fundamental for negotiations on regional development. In fact, such negotiations represent a strategy for conflict prevention. Environmental challenges require long-term perspectives, promote local and non-governmental participation, and favour a sense of community, in turn fostering the creation of common identities related to shared resources. Sharing environmental challenges can be useful, not only in initiating dialogue, but also in transforming conflictive relations, erasing barriers that impede cooperation – turning distrust, misgivings and diverging interests into shared knowledge and objectives.

[9] Resolution of the General Assembly of the United Nations, A/RES/51/229, 8 July 1997, available at: http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N97/772/93/PDF/N9777293.pdf?OpenElement

[10] Wolf, Aaron T.; Kramer, Annika; Carius, Alexander; Dabelko, Geoffrey D., "Managing Water Conflict and Cooperation", in *State of the World 2005*, Worldwatch Institute, February 2005.

The Situation in the Middle East

The situation in the Middle East is one of the clearest examples of the challenge posed by the scarcity and low quality of water. The region, together with northern Africa, is inhabited by 5% of the world's population but only has 1% of renewable water sources.[11] The Middle East and North Africa (MENA) region suffers the greatest scarcity of water in the world: its aquifers are overexploited, the quality of the water is steadily decreasing and the supply water for drinking and irrigation is often rationed – with consequences on human health, agricultural production and the environment. Water disputes lead to conflicts between communities – or in many cases, aggravate conflicts that already exist – and access to unreliable sources forces populations to migrate in search of better opportunities. International organisations establish a threshold of 1,700 m^3 of renewable water/inhabitant/year as the minimum necessary for the sustainable development of a country; if this amount is not attained, the country is considered to be in a situation of water stress; below 1,000 m^3, the country is in a situation of water scarcity. According to this data, the population of the Middle East and North Africa lives below the water stress threshold; the extreme situation is even clearer if we consider that the worldwide average amount of water available per person is 7,000 m^3, as per the same international organisations, and that the inhabitants of the region have access to only 1,200 m^3/person/year.

While the population of the region continues to grow, it is estimated that per-capita water availability will sink by 50% by 2050; in addition, if climate change affects the temperatures and rainfall as expected, the region may suffer severe droughts and periodical flooding.

The problem of scarcity of water in the region is aggravated by political and military instability. Moreover, the Middle East is one of the best examples of regions in which the majority of water resources are of an international nature, which means that use is shared by different nations in the area. A good example is the Jordan River Basin, which is shared by Syria, Jordan, Lebanon, Israel and Palestine without any clear agreement about its use. In consequence, the control, administration and management of water has become a geostrategic issue with national security dimensions in the Middle East.

In view of the situation in the region, it could be considered that the breakout of the conflict relating to water scarcity is simply a matter of time. However, since the players in the region are enormously unequal and the power relations between the parties involved makes such a conflict improbable. Hence, in the Middle East, cooperation may represent the ideal instrument for both dealing with water scarcity and preventing the potentiality of conflicts arising from it. Some even consider it the path towards a solution to the on-going conflict in the region. This would entail reaching specific agreements relating to water that would later allow the parties to deal with and progressing in other aspects of the conflict.

It is difficult to imagine that players in the region, such as Israel and the Palestinian Authority, would be capable of reaching an agreement on a matter of such geostrategic importance as water. Clearly, they would need the support of the international community in order to take the first steps. After all, no-one in the 1950s could imagine that France and Germany, so dependent on mining resources and the iron and steel industry to be able to continue their reconstruction, would be capable of cooperating in matters as important as coal and steel. While the European Coal and Steel Community (ECSC) finally managed to stop the countdown towards renewed confrontation between the two countries, it also sowed the seed for ending a long history of war between them, entering the annals of history as the founding institution of the current European Union. In conclusion, cooperation can thus be considered the start towards a possible solution to the conflict in the region.

[11] KHADER, Bichara, *El Mundo Árabe explicado a Europa*, Barcelona: IEMed – Icaria, 2010.