



Interregional Cooperation: The issue of water in Jordan, Palestine and Israel

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I. Introduction

This presentation begins with a general but brief overview called “Thirsty region” which refers to the countries surrounding the Mediterranean sea. It has been taken from a book published in 2008 by the International Union for Conservation of Nature:

“Water is the Mediterranean most precious resource. The earliest civilisations were able to develop thanks to their ingenuity in water management. The building of dykes and irrigation channels allowed agriculture to develop 10.000 years ago in the Fertile Crescent. A great city such as Rome would have been unimaginable without a sufficient supply of healthy drinking water and an efficient sewage system.

Fresh water is essential to human life and activity, but overpopulated regions can place unsustainable pressure on the resource. According to several estimates, by 2025 water consumption will have increased by 25% on the north shore and by some 400% in the south and east Mediterranean, where it is scarcest.

The drying of lakes, lagoons, wells and underground aquifers, along with river pollution, are causing problems in almost every country of the region.

Moreover, eight of the twelve countries of the south and east use 50% more water each year than can be replenished. Libya and Palestine use up more than 100% of their renewable water each year; in Egypt, 97% of drinking water can be considered as imported. Furthermore, the driest countries are more dependent on agriculture, which itself accounts for about 80% of water use. For decades now, water disputes have been the reason behind certain regional and transnational conflicts”.

It could be added that, in general terms and with the exception of Turkey and Lebanon, the worst situation occurs in the eastern basin. And, besides the already mentioned pollution of surface waters, overexploitation of aquifers leads to sea water intrusion, such as in the Gaza Strip (Palestinian Occupied Territories).

This degradation might intensify with climate change: the already limited rainfall in the south and east seems to be increasingly scarce and irregular. Tension over the resource is especially worrisome when river basins and underground aquifers are shared by rival countries. As everybody knows, there is a hydro-political issue in the Mediterranean, in the basins of the Jordan, Euphrates, Tigris and Nile rivers, to name only the most conflicting ones.

II. The context of Spanish Development Cooperation

1º The situation in Palestine is obviously –and severely- conditioned by the Israeli occupation.

Since 1967, Israel has set a system in the **West Bank** aimed at preventing Palestinians from getting significant amounts of water from the Northern and Western aquifers (irrigation quotas, control of wells construction, etc). Furthermore, illegal takeover of Palestinian springs by Israeli settlers is a fact against which Palestinian farmers can hardly defend themselves¹. Finally, although the most important cities in the West Bank have sewage networks, there are not enough treatment plants, which leads to health hazards and pollution. In the **Gaza Strip**, destruction of irrigation

¹ United Nations, Office for the Coordination of Humanitarian Affairs, Special Focus March 2012.

infrastructures, over exploitation of aquifers (which, as we said, has caused saline intrusion) and problems with sewage infrastructures are among the most severe problems. As far as the Palestinian National Authority is concerned, the Palestinian legal and institutional framework is weak and fragmented. Its basis was the establishment in 1996 of the Palestinian Water Authority and the creation in 2002 of the National Water Council, in charge of designing national water policies, while the Palestinian Water Authority is responsible for managing and regulating water sources and also for providing this service. Unfortunately, the Council met only in 2005 and water provision remains in the hands of hundreds of water municipal departments and local councils.

2º For obvious reasons, **Israel** is not a recipient country of development cooperation funds. Furthermore, little can be said about the high level of technology and water management excellence of this country. In fact, nearly twenty years ago, during a joint mission (Spanish Agency for International Cooperation and Spanish Ministry of Agriculture) to Middle East countries, our specialist in irrigation and drainage visited the Israeli laboratory responsible for homologating irrigation equipment and devices; a similar one was set up near Madrid – but quite a few years later. Unfortunately, this know-how does not generate technical cooperation aimed at improving the water use efficiency among Palestinians. On the contrary, Israeli occupation is also hydric; cooperation between Israel and Palestine seems to be limited to studies and academic coordination. Such is the case of the project deriving from the Working Group on Water Resources of the Peace Process Multilateral Track, created in 1992 and financed mainly by the European Union. The purpose of the project has been revised and it now consists in the identification and quantification of climate effects on water resources in Israel, Jordan and the West Bank and Gaza Strip. Although the Palestinian, Israeli and Jordanian water authorities meet and discuss, real life is quite different for Palestinians, as we briefly mentioned before.

3º **Jordan** shares the same problems of water scarcity: in 85% of its total area, rainfall amounts to 200 mm per year. However, institutional capacities are stronger than in Palestine and the Jordanian Government is actively fostering the use of alternative resources, specially treated wastewater for irrigation, in order to lift the pressure on drinking water.

III. Spanish Development Cooperation in the region

It could be said that, from the moment Spain began to implement a development cooperation policy, water has been a priority sector in most Maghreb and Mashreq countries. There are two reasons for this: on the one hand, the importance of water

and, of course, the institutional interest of these countries; on the other hand, the fact that Spain (or at least a large part of our territory) shares many problems with them and has therefore an experience and know-how which can be put to good use in similar natural conditions. The Spanish Cooperation Master Plan for 2009-2012 considers all aspects of water as a priority: water and sewage; rural development and fight against hunger; environmental sustainability and climate change. All these aspects are closely connected and they have been tackled both in Jordan and in Palestine. As far as administrative instruments are concerned, assistance can be channelled in three main different ways:

- a) **Institutional cooperation:** a subvention is granted to a Ministry or governmental institution of the recipient country. Our Cooperation Office (of the Spanish International Development Cooperation Agency) in the country supports and follows the implementation process and, if need arises, assists the beneficiary with administrative issues and economic justification once implementation is over.
- b) Cooperation through Spanish **NGOs** (which work with local counterparts), or directly with **local civil society organizations**. As before, the Cooperation Office follows the implementation and supports it when necessary.
- c) Cooperation with **multilateral** organizations, especially of the United Nations system.

In **Jordan, institutional cooperation** has followed an integrated approach which takes into consideration the management of the hydrographic basin. A first project was financed back in 2003 to the Jordanian Ministry of Agriculture for the Kafreen dam watershed. Its implementation, quite slow and difficult, ended in 2008 and, although there were a few planned components, only one was finally implemented: rehabilitation of springs and construction of distribution channels (712 hectares covered). Roughly speaking, the integrated approach failed –but, on the other hand, the irrigated area increased and water losses diminished. There is however some concern about maintenance of these infrastructures (beneficiaries do not feel responsible for it) and about their sustainability which would require the payment of a tariff by water users. A second project, whose implementation finished at the end of last year, was more focused on institutional building– in this case the Ministry of Environment. Its objective was to design and support the implementation of an integrated management plan for the Zarqa river basin. The Unit established in the Ministry (a component of the project) will be the Jordanian Unit in charge or rehabilitation of river watersheds. An external evaluation has been carried out and the final report will be available in a few weeks.

Cooperation through NGOs has more specific (or local) objectives; there are presently two examples in their implementation phase:

(i) Use of treated wastewater for forage crops and trees (wood production), aimed at improving the incomes of 130 farmers in the Zarqa province. The project, which can be seen as complementary to the previous one, is implemented by the Jordanian Society for Organic Farming. Other objectives are: setting up a factory of wood boxes (mainly for agricultural produce) and an animal feed production unit; technical training and awareness raising of farmers in matters as the use of treated water, hydric efficiency, forage crops, composting and tree growing. Agreements have been signed with the Zarqa river basin project and with IUCN.

(ii) The second example is the four year Agreement between the AECID and *Fundación Promoción Social de la Cultura*, aimed at improving management of water resources in order to insure food security in the Occupied Palestinian Territories and Jordan. It covers four Jordanian governorates, one of them being Zarqa. I would like to stress the coordination efforts made by FPSC, especially with the last project I am mentioning.

Cooperation with **multilateral organizations**: Spain financed (144,1 MUSD) the UNDP Fund for the Millennium Development Goals Achievement (MDG Fund), launched in September 2008 by the UNDP and the Governments of Spain, Norway and the United Kingdom. One of its windows is the programme “Adaptation to Climate Change in Jordan” (budget: 4 M USD). The programme has four components: (i) health and water; (ii) food security; (iii) capacity development in climate change modelling and training and awareness on water saving and efficient use; (iv) strengthening adaptive capacity to climate change of the Zarqa river basin. Coordination and shared planning with the Zarqa project are especially important in this last component.

The **Occupied Palestinian Territories** are a priority for Spanish Cooperation in the Middle East – and, as we have seen, water is a complex and difficult issue, technically but mainly politically speaking. I would recommend in this respect a position paper of the Applied Research Institute Jerusalem (ARIJ) called “Water resource allocations in the occupied Palestinian territory: Responding to Israeli rhetoric”. Spanish cooperation has been working in this sector for many years now – and trying to cover its different facets: water saving through improvement of irrigation efficiency; water supply and sewage; institution capacity building. An added difficulty (which applies to other sectors) is that any infrastructure needs the approval of the Joint Water Committee (a Palestinian-Israeli committee) and construction works require permits and licences of different departments of the Israeli Civil Administration (the military

department which rules the Palestinian Occupied Territories, with different laws than those existing in Israel). All these requirements, especially in Area C of the West Bank, are a real obstacle to the sector's development; obviously, this obstacle cannot be solved by development cooperation. (In the West Bank Area C, settlements can be built or expanded, there are restrictions on urban planning, unpunished violence from settlers and permanent presence of the military –this derives in lack of access to land and water, movements' restriction, demolitions, population displacements and attacks against the Palestinian population security). On the other hand, the closure of the Gaza Strip makes projects implementation slow and difficult –or even prevents it altogether.

Until recently, Spanish cooperation has been more focused on water use in agriculture; our present strategy has been reoriented, on the one hand, at fostering the use of treated wastewater as an alternative source of water; especially in the West Bank, several projects of treatment plants and reuse of effluents in small communities are being implemented. On the other hand, it is aimed at improving the incomes of vulnerable rural communities (for example, Jordan Valley or South Hebron) through interventions both in water and sewage and in food security.

Following our “administrative” classification, let me mention a few examples:

- a) **Institutional cooperation:** the main project, both in duration and funds –and also because three Spanish regions (Murcia, Balearic Islands and Catalonia) have co-financed it– is the Food security programme in the Gaza Strip. It started back in 2002 as a project aimed at the rehabilitation of agricultural infrastructures destroyed by Israeli attacks, with the added objectives of water saving and job creation. From the beginning, the emergency component (rehabilitation, immediate job creation) was combined with a development and sustainability perspective in the long run, through the improvement of agricultural infrastructures (mainly irrigation systems) and the technical training of farmers and agricultural engineers. Part of this programme's success is its implementation modality, based on a close coordination among different actors and local counterparts. The main one (the direct recipient of the funds) is the Job Creation Programme, an institution ascribed to the Palestinian National Authority President's Office. The Job Creation Programme itself coordinates with Government institutions (Palestinian Water Authority and Ministry of Agriculture), as well as with civil society organizations (Palestinian Agricultural Relief Committees, PARC, and Union of Agricultural Work Committees, UAWC) and the direct project beneficiaries (farmers and technicians). Sustainability has always been the main criterion, based on local and simple systems, local materials and quality organic agriculture – although it has to be said that the gradual (and



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positive) shift to organic agriculture has been imposed by the Strip closure. I should also stress that the political neutrality of the Job Creation Programme and its professional quality are key factors for good working conditions and results achievement (quantity and quality of local production; introduction of innovative technology; improvement of irrigation systems efficiency; fostering of sustainable production and consumption practices; reduction of unemployment; capacity building of the Job Creation Programme and the local organizations and farmers). For the period 2012-2013, emphasis is put on water saving in front of the severe degradation of the Gaza aquifer (new phase named “Services Oriented towards Development of Agriculture and Water Sectors in the Gaza Strip”).

A second example is the utilization of the APIS database for the water and sewage sector coordination. APIS was set up by the Spanish Cooperation in the framework of a technical assistance provided to the Palestinian Ministry of Agriculture in order to coordinate all cooperation projects (from all donors) in the agriculture sector.

A third example went very well in the beginning. The aim was setting up a laboratory for the Ministry of Agriculture in Gaza, in order to control the pesticides used and, in a second phase, to certify agricultural produce for export. It started in 1999 with the technical support of the Region of Catalonia Department of Agriculture but the many problems and the final closure of the Strip have brought the implementation to an end.

- b) **Multilateral cooperation.** This modality has been used to a lesser extent as far as water is concerned. A programme was started with FAO Palestine in 2007; Spain leads the Agriculture Working Group of the Donor Coordination Local Forum and FAO acts as its technical advisor. Although the programme is centred on information management aimed at strengthening coordination between the Ministry of Agriculture, UN Agencies, NGOs and civil society, one of its activities is the supervision of risk factors for agriculture (especially prices increase and drought).
- c) **Cooperation through Spanish and Palestinian NGOs.** Because of the already mentioned weakness and fragmentation of the water institutional framework, the role played by Spanish and Palestinian NGOs is very relevant, especially in rural areas. Eight Spanish NGOs and one Foundation, and three Palestinian NGOs (directly financed by Spanish Cooperation) are working in the water sector in the Palestinian Territories. As commented before, they work in rural areas and the majority of projects is focused on treatment and use of effluents in agriculture.

Two Spanish NGOs have four year **Agreements** (*convenios*) with AECID; both are working in the West Bank. We already mentioned the FPSC Agreement; in the Palestinian Territories, it has four components: (i) construction and improvement of

irrigation infrastructures and systems (including treatment and rain water harvesting); (ii) farmers training in new technologies and in irrigation systems maintenance; (iii) strengthening of water users associations; (iv) fostering of social participation in water management.

The local counterpart is PARC and the Agreement aims at creating a useful association with the local counterpart in Jordan, JOHUD. Our Cooperation Technical Office in Jerusalem has strongly recommended good coordination with other Spanish and local NGOs, especially ARIJ, since many of them are working in similar projects.

The second Spanish NGO with a 4 year Agreement with AECID is Action Against Hunger. It focuses on vulnerable cattle breeders in the southern part of the West Bank and its objective is to improve productivity of subsistence cattle breeding (sheep) through the improvement of access to water and basic sewage; it includes activities such as improvement of water storage capacity and of practices related to water use. The improvement of income from cattle breeding is being implemented with the assistance of FAO. Action Against Hunger is coordinated with the Palestinian National Authority through the Agriculture Ministry (veterinary services) and the Palestinian Water Authority.

It can be said that both Agreements are progressing more than adequately.

As for **projects**, five of them focus, at least to a great extent, on the treatment and reuse of waste water and on the adaptation of crops to water scarcity conditions. One of them is being carried out by a specialised Spanish foundation, the Centre for new water technologies (CENTA), with the local counterpart ARIJ.

Three other projects focus more on water harvesting; one of them is being implemented by two Palestinian NGOs (Maan Development Centre and Palestinian Hydrology Group) and its objective is to strengthen adaptation capacity to climate change of small holders of the Jordan Valley (crop diversification, organic fertilizers production, zero cultivation; and, in general terms, a production model requiring less inputs).

IV. Conclusions

From the development cooperation point of view, three brief considerations could be made:



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- Water, as we all know, has many aspects, all interconnected, and must therefore be tackled in different ways; however, scarcity in the Eastern Mediterranean demands not only increasing availability from alternative sources (treated wastewater, desalinated sea or brackish water) but mainly water saving and better use efficiency, especially in irrigated agriculture.
- If we want to insure long-term sustainability of cooperation efforts, institutional capacity building seems to be the most appropriate tool, especially for the integrated management of river watersheds and, in general terms, for the establishment of an adequate regulatory framework which takes all factors into account (supply, sewage, treatment, reuse, tariffs for domestic, agricultural and industrial water, etc.).
- NGOs play a very relevant and useful role, especially in the Palestinian Territories where they reach areas and populations not reached by the Palestinian National Authority –and where they support water rights of Palestinians, especially small farmers and cattle breeders.