



**EURO-MEDITERRANEAN  
PARLIAMENTARY ASSEMBLY**



**AD HOC COMMITTEE ON ENERGY, ENVIRONMENT AND WATER**

## **INTERIM REPORT**

### **Fact Finding Mission to the Jordan Valley**

**29 January to 1 February 2010**

**presented by the Chairman of the Ad Hoc Committee  
Stefan Schennach (Austria)**

## **Background and summary**

In July 2009 the Euro-Mediterranean Parliamentary Assembly (EMPA) Presidency commissioned the Ad Hoc Committee on Energy, Environment and Water to prepare a **special report on the situation in the Jordan Valley** following the receipt of a request by Rodi Kratsa-Tsagaropoulou, Vice-President of the European Parliament, for discussion in the EMPA of the possible designation of the Jordan Valley as a UNESCO World Natural or Cultural Heritage site.

The original **co-reporters** of this special report were the Chairman of the Ad Hoc Committee **Stefan Schennach** and the **Tunisian member of parliament Abderrahmane Bouhrizi**, who presented an initial draft at the meeting of the Ad Hoc Committee chaired by Austria from 11 to 13 October 2009 in Linz. At this meeting it was agreed that the co-reporters from all three areas dealt with by the Ad Hoc Committee – Mediterranean solar plan (Italy and Jordan), water management (France and Algeria) and the authors of the special report on the situation in the Jordan Valley – and the recently elected chairperson of the European Parliament delegation to the Ad Hoc Committee **Antonyia Parvanova** should go on a fact-finding mission to the Jordan Valley so as to obtain a better insight into the situation on the spot.

With the exception of the Chairman and MEP Parvanova, the other co-reporters were unfortunately unable to participate for various reasons, although it would have been desirable in particular for the delegation to include a representative of a partner country.

In **Jordan** the programme included meetings with the Water and Irrigation Minister, the Environment and Energy Minister and the Mineral Resources Minister and visits to the Yarmouk river in the north of the country and the start of the lower Jordan river south of Lake Genezareth/Tiberias. On the **West Bank** a meeting with representatives of the Israeli Water Authority, the Coordinator of Government Activities in the Territories (COGAT) and the Israeli Foreign Ministry on Allenby Bridge and a visit to a Palestinian agricultural operation and an Israeli date farm were organised. A meeting took place in Jericho with Palestinian representatives of the negotiating team with Israel, followed by a bus journey through the West Bank to the village of Al-Jeftlik, where a discussion was held with the local community representatives.

### **I. Jordan**

#### **Meeting with the Minister for Water and Irrigation Mohammad Al-Najar**

The Minister said that the reduction in rainfall had had an impact on the ground and surface water. Too much groundwater had been pumped and efforts were now being made to obtain more surface water through dams. In spite of the relatively rainy winter that year the reservoirs were only 48 per cent<sup>1</sup> full (i.e. approx. 114 million cubic metres (MCM) of a total capacity of 218 MCM). The reservoirs had only been completely full in 1992.

It was a problem that the sharing of water with neighbouring countries – “on several fronts” – was not functioning: there was little left over for Jordan and the water level of the Dead Sea was sinking by around 75 cm a year. The Minister admitted that too much water had been taken from

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<sup>1</sup> According to the *Jordan Times* of 1 February 2010, compared with 39.5 per cent two years earlier.

the Yarmouk river (in the north of Jordan on the border with Syria), but that there were not many alternatives because of the growth in population. Limits were imposed on domestic needs, industry and tourism. He suggested the following alternatives:

- desalination of brackish water
- reduction in water consumption
- equitable sharing of water by farmers

The sharing of water in the Yarmouk river had been settled by the Wadi Araba peace treaty with Israel, which states that Israel is entitled to 25 MCM annually and Jordan the rest. In 2009 the Yarmouk had had only 35 MCM. Israel received 13 MCM in the winter and 12 MCM in summer, which meant that there was practically nothing left for Jordan in the summer. The treaty with Israel was based on historical data and not on current ones, said the Minister. Before the peace treaty was signed the water had been shared in a ratio of 2:1 in favour of Jordan.

Around 33 per cent of the water in Jordan was lost in the pipelines. The state guaranteed a basic supply<sup>2</sup> and the prices by private suppliers were fixed by the state.

The Minister said that 60 per cent of sewage effluents in Jordan were treated and reused as service water. Some plants needed to be modernised and there were problems with the salt content of service water, which was mixed if necessary with fresh water so that it could be used for agricultural purposes.

A feasibility study coordinated by the World Bank on the Red Sea–Dead Sea project (a canal bringing seawater to the Dead Sea, which had, however, been criticised from various quarters because of environmental problems) would be completed in June 2011<sup>3</sup> but according to the Minister desalination using solar energy was not currently feasible.

### **Meeting with Minister of the Environment Hazem Malhas**

The new Minister of the Environment, who has only been in office for sixty days (as successor to Khaled Al-Irani, the current Minister for Energy and Mineral Resources whom the delegation met at a working dinner) had not heard neither about the proposal for listing the Jordan Valley as a World Cultural or Natural Heritage site before and described it spontaneously as a “brilliant idea”. He said that the restoration of the Jordan Valley would take twenty-five years. The Committee Chairman mentioned the possibility of funding from the Union for the Mediterranean (UfM). The Minister also appealed for assistance in revitalising Jordan’s rivers.

As a former Greenpeace activist, he regretted the environmental damage that had been caused in his country (in particular in the Zarqa, the second longest river, which enters the Jordan after the Yarmouk). He mentioned the Jordan Water Strategy 2008–2022,<sup>4</sup> a fifteen-year programme

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<sup>2</sup> According to Mousa Jamaani, Secretary General of the Jordan Valley Authority, the population receives water free of charge for one whole day, with a different region being supplied every weekday. At the weekend private suppliers and water reservoirs are used; different tariffs apply for agriculture and industry.

<sup>3</sup> See [http://siteresources.worldbank.org/INTREDESEADEADSEA/Resources/RDS\\_Background\\_Note\\_Dec\\_2009F.pdf](http://siteresources.worldbank.org/INTREDESEADEADSEA/Resources/RDS_Background_Note_Dec_2009F.pdf)

<sup>4</sup> See [http://www.semide.net/media\\_server/files/J/6/JO\\_Water-Strategy09.pdf](http://www.semide.net/media_server/files/J/6/JO_Water-Strategy09.pdf)

for revitalising rivers and lakes, saying that there was a particular need in this regard for expertise and technology.

Jordan placed great hope in solar energy, to pump sewage effluents to treatment plants, for example. Schennach suggested that projects could be organised in cooperation with the new UfM secretariat in Barcelona and its Secretary General Masaadeh, who was from Jordan. The Minister suggested that the Bedouin concept of “haema” or protection zones could be used as an “Arab concept” for environmental protection.

### **Visit to the Jordan Valley in Jordan**

The trip continued to the triborder region in the north of Jordan, where the **Yarmouk** is dammed right next to part of the Golan Heights occupied by Israel since 1967 and annexed in 1981. It leads into the King Abdullah canal to supply Jordan and also provides Israel through an underground pipeline with 25 MCM/year, in accordance with the treaty.

The delegation also visited the Jordan a few kilometres south of Lake Genezareth/Tiberias, which at this point contained only very little heavily polluted red-brown water. According to the Israelis the water was to be treated in the near future. It is questionable whether the treated water will be used for agriculture and whether any water at all will then flow into the **lower reaches of the Jordan**.

During the journey through the Jordanian part of the Jordan Valley on the lower Jordan a meeting was arranged with representatives of the Jordan Valley Authority, which presented a system for organising some farming operations into cooperatives (between 75 and 420), each with their own pumping station providing the land with a mixture of brackish groundwater and surface water from the King Abdullah canal. Once a month the Authority and the cooperatives discuss the water use, which depends not only on the topographical situation but also the type of operation.

After returning from the West Bank and Israel the delegation met for a working dinner with **Jordanian Minister for Energy and Mineral Resources and former Minister of the Environment Khaled Al-Irani** and again with **Minister of the Environment Hazem Malhas**. Minister Irani was pleased to inform the Chairman that King Abdullah II of Jordan had that day signed a decree<sup>5</sup> bringing into force (provisionally) a law encouraging renewable energy, which is remarkable to the extent that to date only the construction of a nuclear power plant near Aqaba has been discussed. He said that the go-ahead had now been given for direct negotiations by the Ministry with companies and for international cooperation on renewable energies, to be used in future not only for obtaining water but also for pumping it to Amman.

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<sup>5</sup> See <http://www.jordantimes.com/?news=23632> and <http://www.jordantimes.com/?news=23861>

## **II. West Bank and Israel**

### **Meeting with representatives of the Israeli Water Authority at Allenby Bridge**

This meeting was conducted on the Israeli side by Professor emeritus Uri Shamir from the Stephen and Nancy Grand Water Research Institute at the Israel Institute of Technology (Technion) in Haifa. It was also attended by representatives of the Coordinator of Government Activities in the Territories (COGAT) and of the Israeli Foreign Ministry.

In preparation for the visit Israeli letters were communicated, which criticise a report by the World Bank in April 2009<sup>6</sup> and Amnesty International of October 2009.<sup>7</sup> The basis for the presentation (annex 1) and the Israeli position was a report by the Israeli water authority of March 2009,<sup>8</sup> whose basic premises may be summed up as follows:

- The water shortage in the Middle East, particularly in Israel, the West Bank and Jordan, can be countered through sustainable water management, the development of advanced technologies for efficient water utilisation and the acquisition of additional water resources (in particular through desalination plants and agricultural use of treated sewage effluents).
- Israel is interested in a lasting agreement with the Palestinians and with Lebanon and Syria based on the provisions of the peace treaty with Jordan for the shared use of water and the Interim Agreement with the Palestinians (Oslo II) of 1995. The agreement with the Palestinians would have to be part of a comprehensive package.
- Israel has more than met its commitments to the Palestinians under the Oslo II agreement: together with the estimated 250 drillings not authorised by the Joint Water Committee (JWC) (approx. 10 MCM/year) the Palestinians in the West Bank currently have over 180 MCM of fresh water per year.
- The Palestinians are not carrying out authorised drillings in the Eastern Aquifer and are not adequately treating their sewage effluents and hence their groundwater and that of Israel in the Western Aquifer (which is recharged by rainfall in the West Bank but flows off to Israel in the west). Moreover, the Palestinian Authority (PA) has refused an offer to set up a desalination plant on Israeli territory near Hadera and to obtain additional water from there. Finally, apart from the “illegal” drillings in the north and west of the West Bank, water is being tapped by from the pipelines of the Israeli water supply company Mekorot.

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<sup>6</sup> West Bank and Gaza – Assessment of restrictions on Palestinian water sector development; <http://siteresources.worldbank.org/INTWESTBANKGAZA/Resources/WaterRestrictionsReport18Apr2009.pdf>

<sup>7</sup> Troubled Waters – Palestinians denied fair access to water [http://www.amnesty.org.uk/uploads/documents/doc\\_19771.pdf](http://www.amnesty.org.uk/uploads/documents/doc_19771.pdf) and Israel's response <http://www.water.gov.il/NR/rdonlyres/6418E727-B10E-44AD-8CD4-BBA0BBF61C93/0/IsraelWaterAuthorityFactsregardingtheAmnestyReportonWaterIssues.pdf>

<sup>8</sup> The issue of water between Israel and the Palestinians <http://www.water.gov.il/NR/rdonlyres/A111EFEF-3857-41F0-B598-F48119AE9170/0/WaterIssuesBetweenIsraelandthePalestinians.pdf>

- The 7.9 million Israelis are entitled to 1,100 MCM fresh drinking water per year (153 m<sup>3</sup> per capita) and the 1.9 million Palestinians 200 MCM (105 m<sup>3</sup> per capita), although only 180 MCM are used, so that the difference is not very great. Moreover, the water supply in both regions (and in Jordan, 172 m<sup>3</sup>) is much smaller than in Lebanon, Syria and Egypt. Israel has improved its water supply considerably through treatment and reuse of water (380 MCM) and desalination plants (currently 287 MCM rising to 600 MCM in 2013 and 750 MCM in 2020).
- Israel sees it as a “natural right” and in compliance with international norms to take water from the Northern and Western Aquifers, although they are 80 per cent recharged from rainfall in the West Bank. In this area, however, only principles and customary international law have been applicable to date because the United Nations Convention on Non-navigational Uses of International Watercourses of 1997 has not yet entered into force since only sixteen of the thirty-five required states have ratified so far. Israel also prefers pragmatic solutions.

Prof. Shamir complained that the draft special report did not take account of this information and contained errors. He emphasised that an agreement with the Palestinians on water had to be part of a comprehensive package and would not be negotiated separately. He called on the PA to carry out sewage treatment projects but believed that this was not very high on their list of priorities. Given the international resources available there could be no question of a lack of funds. In Prof. Shamir’s opinion the non-implementation was due in many cases to the absence of a comprehensive plan for villages. The desalination plant offered to the PA by Israel in Hadera would have cost around USD 1.5 billion, of which 80 per cent would have been covered by international donors in the USA. The price of water from this plant would have cost USD 1.50/m<sup>3</sup>, but the PA would not have accepted this. As far as the inclusion of the Jordan Valley in the list of UNESCO World Cultural and Natural Heritage sites was concerned, Shamir was interested in the idea and agreed that the application could only be made by the riparian states.

Antonyia Parvanova said that climate change should also be taken into account when considering the issue of water.

Schennach referred to international data and the cooperation with Tunisia, representing the countries of the South, which had led to the draft report. Asked whether solar energy could also be used for the desalination plant, he said that it could not be used as a substitute for fossil energy (particularly gas) in large plants. He also pointed out that according to the available information from Jordan, Israel was entitled on the basis of an agreement to a fixed amount of water (25 MCM) per year, and that there was no water left for Jordan in years when the supply was meagre. The Israelis pointed to the relatively small amount of water taken from the Yarmouk (5–7 per cent of Israel’s total requirement) and the differences in this regard between Jordan and Syria.

The presentation by the Israeli Water Authority also referred to the World Bank report and refuted the claim that the Israeli Civil Administration (which was required to authorise projects in area C along with the JWC) was delaying eighty-two projects. It concluded that only thirty-nine projects are in area C and of these only three had not been approved and in any case had not all been applied for or implemented by the PA.

Schennach suggested that a representative of the Knesset be seconded to the Ad Hoc Committee so that the matters could be discussed directly.

### **Meeting with Palestinian representatives in Jericho**

A meeting took place in Jericho (area A) with representatives of the PLO Negotiation Support Unit (NSU). The first part of the presentation dealt with the **energy supply** in the occupied territories of the West Bank and Gaza Strip. The Autonomous Territories were almost completely dependent on Israel: 97.7 per cent of electricity in the West Bank and 60 per cent in Gaza came from Israel. Depending on the political situation (cutting off of raw materials or bombardments) this could lead to shortages. Moreover Israel did not have a legal obligation to provide energy.

The second part of the presentation dealt with **water** (annex 2). According to the Palestinians, the equitable allocation of shared water resources is essential for a viable Palestinian state. This was not currently the case although a negotiated solution that would be both “win-win” and sustainable was achievable. The conflict between Israel and the Palestinians was only one of several in the region; Jordan and Syria were in dispute over the Yarmouk, Israel and Lebanon over the Wazzani, and Syria and Israel over the Golan Heights and the water resources there.

The figures presented by the NSU regarding water control, at least as far as the Western Aquifer is concerned, lie between those of the Israelis and the World Bank report.<sup>9</sup> The NSU admitted that in Gaza 150 MCM was being abstracted instead of 55 MCM (sustainable yield).

In contrast to the Israeli data for per capita fresh water consumption (Israel 170 m<sup>3</sup>/year equivalent to approx. 466 litres/person/day, Palestinians in the West Bank 100 m<sup>3</sup> = approx. 274 l), the NSU puts the figures at 60 litres/day (Palestinians) and 280 litres/day (Israel). If consumption by industry and agriculture is included, Israel has access to seven times as much water as the Palestinians. It should be noted that according to Israeli data used to calculate the per capita consumption, there were 1.8 million Palestinians in the West Bank in 2006 compared with 7.1 million Israelis. The World Bank based its figures on 2,123,000 Palestinians in 2005 compared with 4 million by the NSU (including Gaza). As a first step in the negotiations it would be useful if the partners could agree on a common set of figures.

The NSU explained the refusal of the offer to construct a desalination plant near Caesaria/Hadera that had been criticised by Israel by citing technical reasons (height difference of 800 metres up to Jenin) and economic ones (USD 1.90/m<sup>3</sup> compared with USD 0.34/m<sup>3</sup> for local supply). It also said that the offer avoided addressing the issue of Palestinian water rights.

Basically the Palestinians are proposing a reallocation of the some of the fresh water from Israel with the water not used by the Palestinians being available to Israel during a transition period required to enlarge capacities. They also call for the joint development of new water resources,

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<sup>9</sup> See footnote 6; the World Bank speaks on page 11 of total abstractions in 1999 of 1,009.8 MCM, while the NSU claims an annual average between 1996 and 2007 of 734 MCM. On page 22 of its paper FN 3 Israel speaks of a natural annual recharge of 679 MCM of which, as agreed, Israel is entitled to 483 MCM and the Palestinians to up to 196 MCM, but does not mention the actual abstraction. Abstraction from the Western Aquifer is put at 138 MCM in 1999 by the World Bank, 2 MCM (Palestinians), 871.6 MCM (Israel). According to the NSU the average for 1996 to 2007 was 97 MCM (Palestinians) and 637 MCM (Israel), equivalent to an abstraction of 87 per cent of the water from this aquifer by Israel.

which would ultimately result in an increase in available water for or both sides. This would also include water from desalination plants and the reuse of treated sewage effluents.

The NSU stressed at the meeting that Israel had control over all of the water in the West Bank and only released parts of it and that although there was equal representation in the JWC, Israel had had a veto right since 1994. It also found the extensive abstraction of water by Israel from the Western Aquifer, although 85 per cent of this aquifer was in the West Bank, to be inequitable. Finally, because of the absence of data, the Palestinians had had to rely on Israeli data during the Oslo II negotiations.

Other criticisms by the NSU:

- Instead of 70 MCM/year, to date only 12.3 MCM has been developed in the Eastern Aquifer. As mentioned, Israel criticises the Palestinians for no longer obtaining water from this aquifer. The Palestinians say that Israel has withheld authorisations. The Palestinians also claim to have to use polluted surface water (shallow aquifer), whereas Israeli farms and settlements have access to deep drillings.
- One third of the Palestinian water is required for 9,000 Israeli settlers in the West Bank.
- The wall (along and east of the Green Line), which includes 10 per cent of the West Bank, reduces the available water capacity by 100 MCM.
- The 250 “illegal” wells are seen by the Palestinians rather as “unauthorised” wells for which there is no alternative.
- The inadequate or lacking sewage effluent treatment criticised by Israel is due to the fact that sewage treatment plants always have to be built outside towns but that approval in area C has frequently been thwarted because of the refusal by the Israeli Civil Administration to grant authorisation, citing security concerns and conflict with the natural growth of an existing Israeli settlement. For that reason, only one of five sewage treatment plants has been built to date. In addition, international donors are withdrawing because of the long delay (ten years in one case of German development cooperation). At a subsequent meeting Schennach confronted the Israeli authorities with these criticisms. They promised to send the relevant protocols, which have not yet been analysed in full.<sup>10</sup>
- It is true that only 10 per cent of the population are not connected to the water supply system, but that makes no difference when nothing comes out of the pipes.
- Some of the water pipelines date from the Jordanian times (1949–67) and cannot be repaired because they are in area C, leading to a water loss of 34 per cent.

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<sup>10</sup> The Chairman of the Ad Hoc Committee also has the minutes of a meeting of the JWC Joint Sub-Committee on Sewage Effluents of 15 September 2009, which gives the impression that projects are in fact continuing or being initiated and that neither side – at least according to the minutes – wishes to set up artificial obstacles (annex 7).



- It is feared that before the two-state solution is agreed, Israel will establish a state of affairs that obstructs the formation of a viable Palestinian state.
- It is impossible to collect data because of area C and Israeli control of the Jordan. According to Prime Minister Netanyahu this will remain as a buffer zone for Israel even if a Palestinian state is established.
- The Oslo II Agreement of 1995 was an interim solution for five years but has not been further developed since then.

### **Visit to parts of the West Bank in the Jordan Valley**

The delegation headed south from Jericho and then parallel to the Jordan northwards towards what is extensively an extremely arid region, interspersed with Israeli farms and settlements and Israeli military posts. At intervals Israeli water reservoirs could be seen on hills and the blue and white Mekorot water pipelines next to the road.

From the village of **Al-Jeftlik** there did not seem at first glance to be a great difference between the Israeli and Palestinian farms. According to the Palestinians this was due to the heavy rainfall during the winter months. In summer the difference would be evident. A short meeting with representatives of the village council was held there. They said that they had never seen the Jordan and needed approval for even minor alterations (e.g. building work).

At the end of the valley in the direction of Jordan the delegation was again taken in charge by the Israeli authorities, who presented a large Palestinian tomato farm with Israeli assistance. The visit to the Israeli-managed Zorganika date farm (see <http://zorganika.com>) close to the Jordan river, situated in its entirety in the military no-go zone, was intended to demonstrate what could be achieved with “intelligent farming”, including the use of low-quality water for date cultivation.