

The Path's Stations

1 Overlook from an abandoned Syrian fort along the Golan Heights' southern slopes

From road 98 we will turn north at the Hamat Gader Junction towards the Golan Heights' slopes. Take special care where the road is very windy at the top (4 km). Make a left onto a dirt road that reaches the fort.

The Yarmouk River below us flows from east to west and creates a natural border between the Gilad Mountains to the south and the Golan Heights to the north. It originates in Horan in Syria and acts as an international border between Syria and Jordan, as well as between Jordan and Israel. In the past, the Yarmouk was one of the Lower Jordan's main tributaries, but today, 70 Syrian dams capture water to the north, and Jordan diverts water to the King Abdullah Canal, so that only a small portion of the Yarmouk is left to flow into the Jordan River.

The Israeli-Jordanian Peace Agreement resolved that Israel is entitled to 25 million cubic meters (mcm) from the Yarmouk River and Jordan is entitled to 20 mcm from the Lower Jordan River. In addition, Israel stores 20 mcm of water for Jordan throughout the year in the Sea of Galilee and returns it during the summer via a pipe from the Degania Dam into the Yarmouk carrier and then into the King Abdullah Carrier. According to the Peace Agreement, Israel is supposed to transfer 10 mcm of desalinated water (from the salt water carrier) to Jordan, but until Israel builds a desalination plant, it transfers the same quantity of fresh water from the Jordan River. In another agreement a decision was reached regarding the "temporary" transfer to Jordan of an additional 25 mcm of water annually.

From the overlook we can see the Jordanian community Haime, comprised of 12,000 residents. Haime is known for its hot water springs that were used in the Roman era as bathing sites. In addition to Roman remains, the area is rich with forests and olive tree groves, and is considered a tourist attraction throughout the year.

2 Degania Dam

Parking is at the Yardenit Baptism site parking lot.

The Degania Dam was built by Pinhas Rutenberg ("The Old Man of Naharayim") in the early 1930's, in order to reroute water flowing from the Sea of Galilee to the hydroelectric power plant in Naharayim. After the power plant ceased operations in 1948, the dam was used to regulate the amount of water flowing from the Sea into the Lower Jordan River, thus turning the Sea of Galilee into the largest surface reservoir in Israel. From the 1960's and onward, a substantial amount of water from the Lower Jordan was diverted to the National Water Carrier. Unfortunately, the remaining water is not enough to sustain the river's natural ecosystems.

3 A walk along the Lower Jordan from "Yardenit" to the Alumot Dam

From the baptism site "Yardenit", we will walk south on the path along the part of the stream where water still flows and the natural environment has been preserved. After a few hundred meters we will arrive at "Rob Roy", a site that offers delightful outings on authentic American Indian canoes in the Lower Jordan's rich flora. From "Rob Roy" we will continue on foot or in a canoe along the River heading south. This part of the path is part of "Shvil Israel" and it includes walking between the natural river and the salt water carrier, that today contains sewage from Tiberias. After 20 minutes

we will arrive at "Alumot" dam. The dam is the most southern point where the Jordan still flows; from here the River turns into a conduit solely for sewage and occasional flood waters. On the northern side of the dam one can see large pipes and a pumping station bringing water to agriculture, while to the south, a pipe brings water from "The Salt Carrier" (a pipe that collects salty water from springs in the area preventing the Sea of Galilee from becoming salty), as well as sewage from Tiberias and the surrounding communities. The construction of a Waste Water Treatment Plant began in October 2009 and is planned to be operational by October 2011. The plant in Bitania will purify 14 mcm of waste water to the tertiary level. However, plans are to supply the treated waste water to agriculture, so that without allocating fresh water to the river in its place, the Jordan River will cease to flow. FoEME's recent Environmental Flows study that was published in 2010 shows that the amount of water needed for the rehabilitation of the Lower Jordan River is 400 mcm per year, an amount that can be supplied by conservation measures and infrastructure improvements in the water economies of Israel and Jordan.

4 Overlooking from Kochava Hill to the Peace Island- Naharayim

Continue south on Road 90. Across from Manachemiya turn left (to the east) towards Naharayim (Tel Or). Pass the parking lot and enter a paved path that passes through the sculpture garden towards the overlook.

From the Givat Kochava Overlook, it is possible to view the Sirin Heights to the west, the Gilad Mountains to the east and the convergence point between the Yarmouk and Lower Jordan Rivers between the two. It is also possible to see the remnants of Rotenberg's hydro-electric power plant. The memorial site "Giv'at HaBano" (The Girls' Hill), which was created in memory of seven schoolgirls from Beit Shemesh who were murdered by a Jordanian soldier in a shooting attack in March of 1997, is also visible from this point. Naharayim (meaning "two rivers") is the convergence point between the Yarmouk and Lower Jordan Rivers. The first hydro-electric power station that provided electricity for all of northern Israel was established here in the 1930's. The plant's construction was possible as a result of cooperation between the Jewish engineer Pinhas Rotenberg and King Abdullah I of Jordan. The plant was active until the start of the War of Independence in 1948. The region received the name "Peace Island" when Israel and Jordan signed their peace treaty in 1994 in Naharayim. "Peace Island" refers to land under Jordanian sovereignty, and owned by Kibbutz Ashdot Yaakov, who cultivate the land and promote tourism and local development of the region. Today, Friends of the Earth Middle East is promoting converting the area into an ecotourism site and a regional bird watching center. The proposed project will be a transboundary Peace Park that will be a joint Jordanian-Israeli venture. More details at our website.

From the overlook the Jordanian community Shuna Shemaliye can be seen, with most of its 25,000 residents earning their living from agriculture. 75% of the water resources for agriculture in the region come from Wadi El-Arab dam (a stream that flows from the east that originally spilled into the Lower Jordan River) and 25% from the "King Abdullah Carrier" (diverted Yarmouk River waters). The price of water is very low and irrigation methods include flooding, use of sprinklers or drip irrigation. Drinking water, coming from wells, are pumped once a week into collection tanks in residents homes. The amount of water in the tank is the total amount that residents of the house can consume until the following week's allocation.



Even today, Shuna's domestic sewage is drained into cesspits. The council uses a pumping service, intermittently pumping the sewage from the cesspits and transferring it to the treatment plant "Acaider", and from there to the Waste Water Treatment Plant "Hirbat Samra" and to the "Talai", the King's Dam. This year, a new Waste Water Treatment Plant will be operational, built at a cost of \$13 million dollars, funded by "USAID".

It is highly recommended to visit the "Peace Island", "Givat HaBano", and the "Dam Trail" along the Yarmouk (payment at entrance, for details: 04-6709143).

5 Hagal Waste Site

On Road 90, at Menahamiya Junction, turn west towards Menahamiya. Continue straight until the traffic circle, where you turn left and continue straight until the entrance to Hagal site.

Hagal Waste Site, near Menahamiya, has been active since 1999 as a solid waste site for domestic waste, receiving 1,200 tons of waste per day. Today, only 10 years after its establishment, land provisions are utilized almost to capacity, and there is already a need for an additional waste site. The waste that is buried in the site goes through a process of disassembly in anaerobic conditions that create, among others, Methane gas (CH₄). Methane gas is one of the greenhouse gasses that contribute to global warming. Methane has a heating effect 21 times stronger than Carbon Dioxide (CO₂). Nonetheless, energy can be produced during the process of the burning of the gas, and indeed, two generators are stationed at the site producing electricity from the Methane gas that is created in the disassembly process. Visiting the site raises the issue of solid waste problems in Israel, growing every year by 5%. Waste has severe environmental and economic costs, among them land consumption, air pollution, ground pollution and contamination of ground water resources. One of the ways to reduce the severity of the problem is to separate, in advance, household waste into organic waste (35%), of which compost can be made, and paper, plastic and metals that can be recycled.



The Jordan Valley – Then and Now

The Lower Jordan River, flowing south from the Sea of Galilee and into the Dead Sea, begins its journey in the Jordan Valley Regional Council's district, meeting its largest tributary, the Yarmouk River, at Naharayim. From Naharayim the Jordan River flows south, forming the border between Jordan, Israel and the West Bank. The Jordan Valley is part of the Syrian-African Rift and serves as a rich habitat for plants and animals and is a major migration path for over 500 million birds each year, as they make their way from Europe to Africa and back.

Since the 1960's the Lower Jordan River and tributaries have been diverted and dammed by Israel (47%), Jordan (23%) and Syria (25%). This has left the Lower Jordan River with only 2% of its natural water quantity. This diversion has caused extreme damage to the natural ecosystems of the river, and is the main cause of the declining water level of the Dead Sea and its surroundings. Apart from reducing the quantity of the Lower Jordan Rivers water, the quality of water has also been compromised. Instead of fresh water that once flowed in the river, sewage and saline waters are dumped into the river in its place. Although the Jordan River is holy to the three monotheistic religions, and in spite of its universal importance for natural and cultural values, it has been treated as the area's 'backyard dumping site'. In addition, access to the river is blocked for most of its length, and the River's tourism potential has not been realized.

The Jordan Valley Regional Council is made up of 11,000 residents who live in 21 kibbutzim, moshavim and small villages. Since 2005, it has participated in the "Good Waters Neighbors" project, with the neighboring Jordanian communities of Muaz bin Jabal and Mucbeiba (Haime). This path was prepared for you by Jordan Valley residents with the help of "Friends of the Earth – Middle East" in order to showcase the local natural wonders and to raise awareness of the need to rehabilitate the Lower Jordan River. During the tour we will review water agreements between Israel and Jordan, both past and present, view the neighboring Jordanian communities and hear about the water conditions across the border.

This trail is one of 25 paths or trails that deal with the issue of water and peace building between Israeli, Jordanian and Palestinian communities that share a common water source. The routes were planned during 2007 in the framework of the "Good Water Neighbors" project in cooperation with community representatives as well as the municipalities.

The goals of the trails are to:

- Raise public awareness of shared water and environment concerns of the communities
- Promote cross border cooperation for solving environmental problems
- Develop the potential for local eco-tourism

The "Good Water Neighbors" project was established in 2001 by "EcoPeace / Friends of the Earth Middle East" in order to promote local cooperation efforts to protect the shared water and environment between Israel, Jordan and the Palestinian Authority.

"EcoPeace / Friends of the Earth Middle East" is a regional environmental organization that works out of 3 offices, Tel Aviv, Amman and Bethlehem to promote cooperative efforts to protect our shared environmental heritage.

The brochure was written, updated and edited in March 2010 by Hagai Oz and Michal Sagive.

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Information about the rest of the "Neighbors Paths" can be found at: www.foeme.org

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Neighbors Path

