

WATER AS A SOURCE OF LIFE

YOUTH EXCHANGE PROJECT 2008
ORT SHAPIRA & WILLY-BRANDT-SCHULE



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Introduction

Imagine you wake up in the morning and you only think about taking a shower. You go to the bathroom, take off your clothes and turn on the water-tap. Normally you should get water but will it also work now? You think: 'Please, let the water come today.'

But why is it like this? Why do you have to be scared of getting water? We are in Israel. Israel hasn't got many resources of water. Nowadays there are about 7 million people who live in Israel but only 2 million of them can get water regularly.

The only water resources are in the north of Israel. That's the reason why it's difficult to share the water so that everyone in the country has enough water. The most important lake is Lake Kinneret. From this place water is distributed to each city in the country. The people get their water and electricity from dams that were built in the Jordan, a big river in the north of Israel. With modern methods scientists try to handle the water shortage.

Furthermore the water supply is a big political problem, too. It always comes to fights between Israel and Syria. The countries around Israel, Lebanon, Syria, Jordan and Egypt, don't have the same problems with their water resources. They have enough water for everyone.



Problems & Solutions to Water in Israel

In Israel there is a water problem, here are a few reasons:

1. The country is situated in a dry area.
2. The population in our country grows and the standard of living gets better.
3. There were a few years without rain.

Because of those reasons the problem has become a huge issue. Here you have a table that you can see the problems and the solutions in the water topic in Israel.

	problems	solutions
1	The farmers are using 2/3 of the sweet water that we have in Israel.	In the waste water there is 99.5% water and it is easier and cheaper to clean it and then used it in the agriculture
2	Most of the land in Israel is covered in cement and stone. When it is raining the water can't enter the land.	Keep green areas between the buildings so that the water can enter the land.

Desalination of salt water to sweet water that we can drink is easy but expensive. In Israel we have 3 factories of desalination of water and until 2012 it is planned to build 3 more.

In these days the factories desalinated 150 million cubic meter of water of which 10% is farm water.

The weirdest way to cope with the water problem is sowing clouds. In this way airplane scatter material in the cloud that creates the rain drops and can increase the precipitation by 15%.



SOURCES OF WATER



Israel supplies water from three different sources. One is the fresh water coming from the rain, Lake Kinneret, rivers and groundwater which is collected in basins. The other one is the desalinated water which comes from the Mediterranean Sea. The third source is the used water which is prepared for using it in the agriculture. First we would like to talk about the fresh water source. Israel's main freshwater resources are: Lake Kinneret, - the [Sea of Galilee](#), the Coastal Aquifer - along the coastal plain of the Mediterranean Sea, and the Mountain Aquifer - under the central north-south (Carmel) mountain range.

Additional smaller regional resources are located in the Upper Galilee, Western Galilee, Beit Shean Valley, Jordan Valley, the Dead Sea Rift, the Negev and the Arava. The long-term average quantity of replenishable water from major water resources amounts to about 1,800 MCM per year.

Second we would like to tell you about the desalinated water which is taken from the Mediterranean Sea and also from the Red Sea. One big desalination plant is in Ashkelon (on the west coast of Israel) it's the largest in the world.

With a capacity of 320,000m³ per day, the plant produces around 13% of the country's domestic consumer demand – equivalent to 5–6% of Israel's total water needs – at one of the world's lowest ever prices for desalinated water.

Finally we would like to mention the recycled water in Israel. They use the water which the people in Israel use for washing, cooking and cleaning and recycle it from chemical parts so that they utilize it for agriculture.

Recycling water combats shortages, reduces expenses, benefits the economy and improves the environment. Waste disposal is today one of the most serious global environmental problems and in Israel, chronic water shortages endanger the country's agriculture.

To sum up Israel solves the water problem by using all these water purification but it is not sure that they always have enough water

KFAR-SABA WATER TOWER



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In the beginning of the settlement in Kfar Saba, people did not know about the presence of water in big sizes and in a good quality.

The first settlers at the beginning of the century brought water from Moshav "Kfar Melel" to Kfar Saba; there are also stories of bringing water from "Petah Tiqva". There is no doubt that under these conditions it was impossible to develop a farmer's city or even urban settlement, and therefore the settlement was abandoned. Only at the beginning of the twenties when one well was already in Kfar Saba, the settlement was back. During the twenties and thirties many wells were dug in Kfar Saba. Some of the wells were excavated by farmers in the settlement who plant orchard and some excavated by public bodies that took care for the supply of water to all the settlers - even those that were not farmers holding a private well.

At the end of the twenties Kfar Saba built water factory that merged the water supply for the village, except for some of the farmers who had private wells.

The water tower in Kfar Saba was founded as a cooperative association in 1931.

Since then he is economically independent and isn't supported by governmental budgets and the municipal budget.

The factory spends the funds that are received from the water supply or from building rights, to improve the water supply, while leaving reserves appropriate for improving the water economy.

This has created the urban system considered one of the most developed systems for treatment and sharing drinking water. The water depreciation (the amount of water that goes lost in the distribution of water) are low in relation to others, it's only about six percent, compared to an average of fifteen percent depreciation in the other. The system allows advanced water supply even when the electricity is down and in emergencies. Kfar Saba can even provide her neighbor's water, especially in distress times.

The history of the water problems in Israel

The causes of the crisis are both natural and man-made. Israel has suffered from four current years of drought. The increase in demand for water for domestic uses, caused by population growth and the rising standard of living, together with the need to supply water equal to international undertakings have led to over-utilization of its renewable water sources.

The agricultural sector has suffered most because of the crisis. Delivery to the shortage, water allocations to the sector had to be reduced drastically causing a reduction in the agricultural productivity.

The current crisis has led to the realization that a master plan for policy, institutional and operational changes is required to stabilize the situation and to improve Israel's water balance with a long-term perspective.

The annual water supply is about 1.5 cubic meters and 60 % of it is treated wastewater and the other 40 % are overall sewage treatment. A lot of customers claim for the water like the local councils, the agricultural settlements, kibbutzim and regional associations, who in turn supply water to Israel's citizens, farmers and industries. The Mekorot water company was founded in 1937 and is fully owned by the state of Israel.

The company sale more than US\$ 700 million per year and has a shareholder's equality of US\$ 500 million. There are around 3.000 production and supply facilities, with 8 control centers and 10.500 km of water pipes.

31 desalination plants are existing in Israel and there will be another one operational in 2011 in Ashdod.

Kfar Saba Mulheim Student Exchange Documentary

Wednesday – 22.10.08

The Germans arrived at Ben-Gurion airport at 04:00 o'clock, while the Israelis were waiting at the school. Soon after the arrival at school, we ate an Israeli style break-feast in the teachers' room.

After finishing eating together at about 06:00, we went to the Kfar Saba Park, where we walked through the beautiful park to spend some time and have a little conversation in the fresh air.

For some of us who didn't know each other from the previous exchange, so this was a good opportunity for everyone to get to know his partner.

Later on, we had our meeting with the Deputy Mayor Dr. Buky Chass at 08:00, who gave us a speech about the origins of the city and showed us the first well of Kfar Saba.

Afterwards we paid a visit to the Water Tower and climbed to the top where we could see a 360 degree area view of the city. Shiri, our guide explained us about the Water Tower itself, how it works and its importance to the city.

Finally at about 10:00 everybody went to their houses with their partners where they had some sweet hours of sleep.

In the evening we had a nice match of bowling at Ranana's City's Mall, then most of us sat at a coffee place and had a lovely time.

Thursday – 23.10.08

We met in school at 07:00 o'clock and started our trip to the north. At around 08:30 we made a pause at Alonim. We then continued on our way and saw the Kinneret.

From there we went to "Yardenit", which is a section of the Jordan River. It is important to Christianity.

Next we visited the Sapir Site where they pump water to the rest of the country.

After a short lunch break, we visited the Mount of Beatitude, where a well known church is situated. They were holding a religious service when we arrived.

Towards evening we reached the Gadot Observation Point. We saw the sunset and we learned a bit about our heritage. It was a long day and we came home tired but with unique experiences.

Friday 24.10.08

At first we came to school and divided into groups to work on our common project "water".

There were about 5 groups with different subjects that included the whole big project of water.

After the hard work in the school lab we went by our bus to the city Tel – Aviv. We went to Old Jaffa, we saw St. Peter's Church and the coast, we were at Nachlat Benjamin (a popular street closed to traffic and very colorful on Fridays) and did some shopping and had fun. Afterward our guide took us to Rabin Square the memorial monument of the prime minister and told us few words about Yitzhak Rabin the prime minister assassinated on 4.11.95.

Saturday 25.10.08

On Saturday we had our free time with the host families and each family chose its own perfect day.

Sunday 26.10.08

The group met at school by 08:30.

We drove to Jerusalem; there we saw the "Western Wall", which is a holy place for Jews. This symbolizes our religion left from an ancient Temple which was built by our king Solomon.

First we went to "Mount Herzl", where Yitzhak Rabin, an Israeli prime minister who was shot dead because of his political activities. After our tour guide explained more about this subject, our next stop was at the Shiloh tunnel, an old cave filled water, which had been used in biblical days as a water source within the city out to the river captured by the Roman Empire. We went walking inside, had fun and wet our feet for about 45 minutes.

After we had fun in the Shiloah tunnel and learned some Israeli history, the group visited the CHURCH OF THE HOLY SEPULCHRE, where by Christian belief Jesus Christ was crucified. While we were entering the church, the priests were making a mass ceremony. It was very unique for all of us students.

And to finish this exiting long day, we had some time in the "Time Elevator", which included moving chairs and 3D-movie.

Monday 27.10.08

At the beginning of the day, all students met at school at 7.30, where we had a little breakfast. After breakfast we drove to Mekorot, the biggest company in Israel to clean wastewater. An engineer of the company informed us about the process of cleaning the dirty water and reusing it for agricultural purposes only.

After the visit we ate a typical Israeli food called `Falafel`. Later on we saw Caesarea, an ancient roman town. Finally all students went shopping with their hosts, to buy some souvenirs.

At the end of the day we had a big farewell party. All students of the exchange program celebrated together with the host families. We saw a slide-show about the successful exchange and received presents from Ort-Shapira-Highschool. The German group thanked their Israeli hosts in return for the wonderful experiences and the feeling of having been very well looked after. It was a long night for all of us and finally everybody was sad because it was time to say good bye.

Water-Red-Dead Project

Jerusalem Post- 16/5/08

A group of Israeli and foreign businessmen and bankers are finally ready to build a \$3 billion canal between the Red and Dead Seas, desalinating the water, producing hydroelectric power and yielding profits, clean water, jobs and potentially unprecedented regional cooperation.



Photo: Courtesy

Slideshow: [Pictures of the week](#)

The project could create work for a million Israelis, Palestinians and Jordanians, draw eight million tourists a year to Israel, and produce a billion cubic meters of desalinated water.

Jordan's King Abdullah and Saudi Prince Walid bin-Talal have already given their enthusiastic endorsement of the project, according to its initiators.

The dramatic Valley of Peace initiative in the Arava was unveiled Thursday - the 60th anniversary of Israel's Independence on the Gregorian calendar - by 57-year-old Israeli billionaire Yitzhak Tshuva, owner of the El-Ad Group that includes Manhattan's Plaza Hotel and Delek, Israel's second-largest oil and gas company.

With inspiration and involvement from President Shimon Peres, the project needs only government approval, as Tshuva said that tycoons

such as Shari Arison, Nohi Dankner and Stef Wertheimer have all committed themselves to investing money in the project.

No state funds will be needed, Tshuva told *The Jerusalem Post* after his emotional speech during a luncheon at the Presidential Conference 2008: Facing Tomorrow at Jerusalem's International Convention Center.

Tshuva, who sat with Peres along with other leading business people, said that the 166-kilometer-long canal between Israel and Jordan would be only the beginning. The planned Valley of Peace through the Arava would be developed to include tens of billions of dollars worth of hotels (with 200,000 beds) and other tourist attractions, clean industry and one of the largest botanical gardens in the world - providing a million jobs.

It would quadruple tourism to Israel from today's two million annual visitors, he said. The billion cubic meters of desalinated water it would yield would make the Arava green on both sides of the border, said the 57-year-old real estate and fuel tycoon as Peres smiled broadly. Greenhouses would raise winter fruits and vegetables and sell them in the region and abroad.

The area would, according to this "amazing vision," be turned into a free-trade zone, attracting investment from around the world. A high-speed train line and highway would run alongside the canal, transporting people and goods between the Dead and Red Seas within an hour, according to a sophisticated audiovisual presentation shown to the audience.

"This is the only way to get out of the cycle of violence and the dead end in the area," continued Tshuva. Jobs and prosperity, he maintained, would moderate Arabs in the region and give them an alternative to violence and terror. "Peace will be made not by peace agreements but by making cooperation and goodwill among the

peoples of the region. The Valley of Peace will provide a solution for generations to come."

Not only did the Jordanian king tell Tshuva that he wants to be an "active partner" in the project and wanted it to "start immediately," but Saudi Prince bin-Talal, who visited him at the Plaza Hotel in New York, said he was ready to invest in the project via Jordan. Tshuva expects investors in other countries such as the US, China, Japan and Russia to participate in funding it.

A "Valley of Peace Law" would be required to pave the way for the canal, "which can be built two years after the earthmoving machines are brought in. I know. I have experience," Tshuva declared. He also delivered a short message in Arabic to highlight his interest in Arab cooperation in the project.

Asked by this reporter - who covered the late prime minister Menachem Begin's Knesset dinner some 30 years ago when he announced a plan for a "Mediterranean-Dead Sea Canal" - about previous canal plans that never took off, Tshuva said such a horizontal canal would not work "for various reasons" but that the climate today makes a Red-Dead Sea canal possible.

The hundreds of people at the luncheon gave Tshuva and Peres a standing ovation.

Leon Recanati, former chairman and CEO of the IDB Holding Company and now head of a private investment company, told the *Post* that if "ecological and other data proved positive and it were regarded as economically worthwhile, such a canal would be worth investigating." As for himself, Recanati said he would not invest in it because "I am doing other things."