

► Overuse of Water

If a **groundwater** aquifer is utilized more than its annual renewable replenishment then the groundwater level will gradually decrease. When the aquifer borders salt water, salt water intrusion is possible and may eventually lead to the permanent destruction of the aquifer. This is happening in Gaza now and possibly in the Jordan Valley area.

Since the occupation in 1967, Israel has drilled many new wells in the mountain aquifers within the WB in order to supply new Israeli settlements and their National Water Carrier system with water. Israel drilled deeper wells than those existing, especially in the Eastern Mountain Aquifer Basin in order to tap more than one aquifer at a time. This has negatively affected the quality and quantity of the water in Palestinian wells, forcing many farmers to abandon their agricultural land for lack of water.

The main problems connected with overuse of groundwater can be summarized as follows:

- Increased salinity in Gaza and the Jordan Valley
- Drying up of springs and shallow wells (This happened in Bardala and Jenin.)
- Increasingly higher pumping costs as the water table lowers
- Depletion of the aquifer due to continuous overuse

A similar problem exists with regard to **surface water**. Due to over-extraction from the JR, the river flow has dropped drastically over the past decades with some experts reporting an 80-90% drop. Today, the JR is incapable of replenishing the Dead Sea, which is slowly but gradually disappearing.

In early June 2002 the Knesset Inquiry Committee stated that the water crisis is likely to worsen in the next few years to the point of risking availability of drinking water.



The Dead Sea

► Water Quality and Pollution

A wide range of industries depend on water. For some industrial uses, the quality of the water is less important. But for others, like food processors, the adherence to high standards for water quality is vital in order to access national and international markets.



Wastewater discharged on cultivated land

There are very few sewage treatment plants in Palestine and the existing ones do not operate satisfactorily. Less than 40% of Palestinian households are connected to the sewage system and therefore wastewater is discharged into percolating pits or septic tanks which are emptied by vacuum trucks or discharged into the wadis, posing an environmental hazard to the underground aquifers.

In June 2002 the Israeli Hydrology Service announced that some 15% of the water pumped from the coastal aquifer is unfit for drinking. The Western Mountain Aquifer was found to be of higher quality, but also polluted at certain spots, such as in the Tulkarem-Qalqilya and Hebron areas, mainly due to untreated sewage.

Water quality is especially an issue in Gaza where the aquifer is threatened by sea water and salt groundwater intrusion due to over-pumping, by pollution from the nitrates in over used fertilizers, and by the infiltration of sewage and sand caused by poor infrastructure. To solve these problems purification of consumption water is needed, but it is very expensive. The salinity problem presently has no sustainable solution.

In the WB the water quality of the deep groundwater aquifers is generally good although there are indications of increasing salinity in the Jordan Valley area. The quality of surface water supply and water from shallow springs varies depending on the influx of sewage. There are



Wastewater at Jalazone Camp