

## **The Palestinian Central Bureau of Statistics (PCBS) issues a press release on World Environment Day**

### **“The Palestinian environment to where?”**

The occasion of World Environment Day (WED) is celebrated every year on the fifth of June since 1972, when the General Assembly of the United Nations declared WED at the opening of the Stockholm conference on human environment. At the same time, the General Assembly announced the establishment of the United Nations Environment Program (UNEP), and gave it the responsibility of increasing world attention to the environment, and increasing the awareness of the public about their important role in the protection of the environment.

The theme of WED in 2010 is “Many Species, One Planet, One Future” It echoes the urgent call to conserve the diversity of life on our planet. For this reason, the United Nations has declared 2010 as the International Year of Biodiversity. The international celebrations of WED for 2010 will take place in Rwanda to reflect on the environmental problems this country faces.

The world celebrates this occasion in the light of many global environmental challenges; including: the continued emission of greenhouse gases, which leads to higher degrees of warming and increasing climate change; in addition to desertification, food shortages, poverty, lack of sustainable development, increasing floods and eruptions of earthquakes, volcanoes and others.

While the world celebrates the WED 2010 and boasting its environmental achievements and the level of quality of life of its citizens, this date reminds the Palestinians of the Israel's occupation of the West Bank, including East Jerusalem, Gaza Strip and other Arab Territory in 1967. After 43 years of this occupation, Palestinians still live under occupation that is depleting the environmental resources in the Palestinian Territory. The depletion and destruction of environmental resources caused by a number of Israeli actions most notably the establishment of settlements, which have a destructive impact on the Palestinian environment; in addition to the confiscation of land and preventing the entry of Palestinian citizens to their lands to work, the depletion of Palestinian water, polluted wastewater, solid waste, air pollution and noise, destruction of cultural heritage and agricultural sector.

### **Gaza Strip is the most populated place in the world**

The exploitation and misuse of natural resources by the Israeli occupation affect the environment, and cause pressure on natural resources. The Palestinian Territory suffer from a high population density and a lack of natural resources. The population density in the Palestinian Territory reached 663 persons/km<sup>2</sup> in 2009 (439 persons/km<sup>2</sup> in the West Bank and 4,140 persons/km<sup>2</sup> in Gaza Strip), compared to 350 persons/km<sup>2</sup> in Israel. Despite the high population density, there are no renewable natural resources and that causes a deterioration of normal life and environment, deterioration of water quality and scarcity, and deterioration of agricultural land and forests.

## **Water in the Palestinian Territory: current status and challenges**

There are a number of factors that form risks to the water sector in Palestine, including the excessive consumption of water by the Israeli occupation and settlers, which led to the depletion of available groundwater stocks. But the most important of these risks are the Israeli procedures and actions taken against the Palestinians to reduce their consumption of water. One of the Israeli action is the limiting of the amount of water extracted from Palestinian wells where it should not exceed 100 cubic meters per hour, and preventing the Palestinians from drilling new wells or the depth of approved wells should be no more than 140 meters. Israel denies the Palestinians from using the waters of Jordan river, and impedes the supply of water to local municipalities.

The Israeli excessive use of water, population growth rate of 2.9% per year, fluctuating amounts of rainfall from year to year, and unbalanced consumption of water led to a decrease in the available amounts of water in Palestine. Data of 2009 showed that the amount of water purchased for domestic use from the Israeli Water Company (Mekorot) amounted to 47.4 million m<sup>3</sup> in the West Bank. During the year 2008, the annual available water quantity in the Palestinian Territory was 308.7 million m<sup>3</sup>. Data also showed that the quantity of water supplied for domestic use in the Palestinian Territory in 2008 was 185.5 million m<sup>3</sup> and the daily allocation per capita of the supplied water for domestic use in the Palestinian Territory was 132.9 (liter/capita/day) .

## **Water pollution in the Palestinian Territory**

Water is described as polluted if pollutants are found to a degree hinder the use of the water for different purposes as drinking and irrigation. One cubic meter of polluted water could pollute 40-60 cubic meters of clean water. Reasons of water pollution could be summarized as: causes of infections, agricultural and animal residues, detergents, materials consumed for oxygen, oil and petroleum products, chemicals, radioactive substances and heavy metals. The most important aspects of pollution in the Palestinian water are the increase of salts and nitrates.

The concentration of salts in the Jordan River has reached 5,000 ppm; while it did not exceed 600 ppm in 1925. The concentration of chloride has increased from 24 mg/l to 1,365 mg/l in Jericho governorate during the past 20 years . The excessive Israeli pumping of groundwater led to increase salinity in the groundwater. Data showed that the salinity of water reached 27.2% in the West Bank and this is over the international levels (50 mg/l). The nitrates pollute many of water resources; where in Tulkarm the amount of water saved from pollution by nitrates does not exceed 27.0%, while the percentage reached 23.0% in Qalqilya. The high rates of nitrate (50 mg/l) exist in 14.0% of the water wells in the West Bank.

In Gaza Strip, the problem of water pollution is greater than in the West Bank because: the amount of chloride in some areas reached up to 1500 mg/l, and the areas in which the extracted water with low levels of chloride (250 mg/l) does not exceed 45 Km<sup>2</sup> in the northern regions, and 35 Km<sup>2</sup> in the southern regions. The water in Gaza Strip is classified as alkalinity water, with high levels of chloride. About 85% of water wells in Gaza Strip is not suitable for drinking due to components of alkalinity, and increased the concentration of salts (1,000 mg/l) and nitrates.

### **Solid Waste in the Palestinian Territory**

Palestine is facing the problem of solid waste for several reasons: increasing number of population, the lack of materials and resources needed for solid waste management, weak technical expertise, and years of Israeli occupation of the Palestinian Territory. The Israeli occupation is using the Palestinian Territory as dumping sites for the industrial solid waste and wastewater produced from the Israeli colonies built on the Palestinian land. This waste is mostly industrial one of first degree, and form high risk to the Palestinian environment and surface as well as groundwater water.

The closure, siege, and the apartheid wall contributed to the increase in the number of dumping sites. The number of these dumping sites reached 189 random dumping sites of which 133 in the West Bank. These random dumping sites located near residential areas and use the burning of solid waste as the main method for waste disposal. The average per capita daily production of household waste is estimated to be 0.6 kg, while the quantity of solid waste produced daily estimated at more than 2,321 (ton) in the Palestinian Territory in 2009.

### **Agriculture and Environment**

The Palestinian soil is exposed to many of the human, agricultural and industrial activities, which have negative effects on the fertility of the soil and land. The most prominent issues facing the soil in Palestine is the excessive use of fertilizers and pesticides. Because of the large increase in population and the narrow of agricultural area, people have to use fertilizers and pesticides to increase the productivity of agricultural land. In the West Bank the annual rate of use of agricultural fertilizers reached 30,000 tons of chemical fertilizers and manures, and the annual rate of use of pesticides reached to 502.7 tons, consisting of about 123 types, 14 of them are internationally banned for health reasons. In Gaza Strip, the annual rate of use of agricultural fertilizers reached 12,000 tons of chemical fertilizers, and the annual rate of use of pesticides reached 893.3 tons, consisting of about 160 types, 19 of them are internationally banned for health reasons. The agricultural fertilizers and pesticides dangers are reducing soil fertility and water pollution.

According to Agricultural Statistics for the year 2009, the costs of plant intermediate consumption used for pesticides reached 19.7%, while 26.0% of these costs used for fertilizers.

### **Climate Change and Environment**

Large quantities of harmful toxic gases produced from Israeli factories are transferred to the Palestinian airspace by the wind. In addition, smoke and gases from coal-fired power plants in Ashdod and Ashkelon are transferred to Gaza Strip. The Israeli industries in the West Bank and Gaza Strip, as well as industries in Israel form the greatest threat to atmospheric pollution in the Palestinian Territory. Climate experts expect to that gases emitted from the 1948 territory will be increased by 40% by the year 2020.

The forms of climate change in Palestine include decrease in rainfall amounts and increase of temperatures. Data showed that the amount of rainfall ranged between 593.1 mm in Jenin Station and 115.7 mm in Jericho during the year 2009. The time series data indicate that the annual mean rainfall was 942.7 mm in Nablus Station in 2003. Concerning temperatures, data

of 2009 indicated that the lowest value for the monthly mean maximum air temperature as 12.2° C in Hebron Station in January, while the highest value for the monthly mean maximum air temperature was 39.8° C in Jericho Station in July.

Time series data indicated that the annual mean of minimum air temperature over the period 1975-1995 was between 11.2° C in Hebron Station and 15.7 in Jericho Station. The annual mean of minimum air temperature ranges between 12.8° C in Hebron Station and 18.3 in Kardala (Tubas Governorate ) Station in 2009.