

Address of Eng. Fadel Kawash, Head of the Palestinian Water Authority

**Mr. Ahmed Abd Al-Rahman, Representative of his Excellency, Chairman
Mahmoud Abbas, Abu-Mazen.**

**Dear Guests,
Ladies and Gentlemen,**

I welcome all of you here today and would like to express my happiness to have this group of experts and researchers in the areas of water sciences, water management, conflicts in shared water basins and other water related issues.

I would like to express my gratitude to the United Nation Development Programme (UNDP) for their continuous support to and cooperation with the Palestinian Water Authority (PWA) in various aspects including the organization of this international conference.

My special thanks and appreciation go to our friend, Mr. Timothy Rothermel, Special Representative of UNDP. I also wish to thank Mrs. Rima Abu Midain and all employees at UNDP.

Further, we would like to show our appreciation to our colleges at the Palestinian Academy for Science and Technology for their efforts and support to prepare this conference and especially to Dr. Imad Khatib.

The growing pressure on water resources, due to population growth, urbanization and other factors, reveals water shortages and unsatisfied needs. Consequently, several countries, especially in the Arab world, began to search for additional non-conventional water resources, such as the huge desalination plants that started to replace the traditional groundwater wells, springs and rivers.

Water shortages have become the main challenge jeopardizing the future socio-economic stability, security and health in most of the Arab World. This

calls for efforts to develop efficient water policies to manage the water resources within a strategic framework that considers all socio-economic and environmental goals and to study all available options in a discrete and realistic manner.

Ladies and Gentlemen

Water in this area is one of the most important issues of conflict between Arabs and Israelis since the establishment of the State of Israel. The Jordan River Basin constitutes a central theme in the ongoing conflict between the Arabs and the Israelis, while the groundwater aquifer basins in the West Bank are a severe point of conflict between the Palestinians and the Israelis. This continuous conflict over water will continue to create a big obstacle towards achieving a sustainable peace in the area if it is not solved on a fair, reasonable and equitable basis.

Some go as far as to describe the 1967 War as the water war in the Middle East. Correct or not, nobody can ignore the fact that Israel achieved partial control over the Jordan Headwater and the Palestinian Aquifer Basins in the West Bank.

In numbers, Israel has control over 850 MCM/year of the water of the Jordan River Basin and over some 650 MCM/year of Palestinian groundwater resources. This is around 1.5 billion m³ of water or 65% of the total annual Israeli water consumption. These resources are considered one of the main gains of the 1967 War for Israel.

Since the early 60s, Israel has been pumping and transferring these water resources to the Tel Aviv area and Northern Negev with as main goal to enlarge the irrigated agricultural land to 2.5 million dunums, to build additional settlements and agricultural kibbutzim and to make the Northern Negev bloom.

Therefore, we can agree to claim that stolen Arab water resources helped building the state of Israel, expanding the settlements and facilitating immigration to Israel. This shapes the nature and prospects of the Arab Israeli conflict.

Furthermore, Israel uses water to achieve political goals by prohibiting the Palestinians from accessing their groundwater resources, prohibiting the right to use the Jordan River by declaring the whole area adjacent to the River a

military zone. This imposes a water crisis on the Palestinian side and increases the daily suffering of the Palestinian people, which ultimately will force them to leave their land. Up to today, there are more than 220 Palestinian villages and towns without a water supply system. People use cisterns, remaining springs and some shallow agricultural wells for their domestic consumption. Many of these villages even have to buy tanker water. It is important to stress that all these sources are unmonitored and unsafe according to health standards.

Even Palestinians, who live in the major cities and towns that have a water supply system, suffer from water shortages, especially during summer. The estimated average supply to these people is roughly 60 liters per capita per day.

The estimated annual Palestinian water resources in the West Bank are around 850 MCM/year, of which the vast majority, at a rate of 700 MCM/year, is transferred to the underground rock layers. The remaining portion, which is approximately 150 MCM/year, is transferred to surface flow. Besides that the Palestinian water rights in the Jordan River Basin amount to nearly 250 MCM/year, according to earlier development plans. From all these resources, Palestinians presently receive 120 MCM/year and buy 35 MCM/year from Israel.

It is worth mentioning that our groundwater productivity reduced from 48 MCM/year in the year 1967 to less than 22 MCM/year today, while spring discharges reduced from 75 MCM/year in the year 1967 to less than 25 MCM/year.

The main reason for this is the Israeli over-pumping of our water resources by extracting water from the Northeastern and Western Aquifers in the West Bank through the Israeli groundwater wells within the West Bank and the Israeli wells along the Green Line inside Israel. At the same time, Palestinians are not allowed to develop new wells, not even to rehabilitate the old ones or develop any water structure in the wadis to collect run off.

On the eastern border of the Gaza strip, Israel built many water structures to collect the water of the Gaza Strip's Eastern Wadis and divert it to the Beir Al-Sabi'i area. This prevents the Palestinians in the Gaza Strip from using this water that amounts to some 35 MCM/year, causes salinity to expand in the eastern areas, and dries up and pollutes Wadi Gaza.

The water situation in the Gaza strip is catastrophic as the renewable water quantity does not exceed 50 MCM/year while the pumping rates surpass 150 MCM/year, of which 70 MCM/year goes to domestic and industrial use while the remaining 80 MCM/year is for the agricultural sector. The latter is considered the most important sector from an economic point of view as tens of thousands of households work in agriculture. The labor in the agricultural sector constitutes 35% of the total labor force.

At this moment, the main threat to the Gaza Aquifer is the total destruction of this Aquifer if no swift actions are taken to stop the over-utilization. Therefore, it is crucial that alternative water resources are made available and the economic situation improves.

Until now, 30% of water resources in the Gaza Strip have very high salinity with chloride concentration amounting to 1500 mg/l and above. 20% of the areas have high salinity with chloride concentration ranging between 750 to 1500 mg/l, while 20% are moderately saline with a chloride concentration between 500 to 750 mg/l. This means that only 20% of water resources have a salinity value less than 500 mg/l, of which only 15% is considered suitable for drinking purposes according to WHO standards, i.e. less than 250 mg/l. In addition, organic pollution exists in many of the drinking water wells, where nitrate levels range between 150 to 600 mg/l.

The estimated Palestinian water needs for the year 2010 are around 385 MCM/year in the West Bank and about 230 MCM/year in the Gaza Strip. Of this total amount of 615 MCM, 300 MCM are required for domestic and industrial use in both the West bank and Gaza Strip and 315 MCM for agricultural purposes, of which 230 MCM in the West Bank and 85 MCM in the Gaza Strip.

This means that the present water deficit is approximately 350 MCM/year for all sectors. We believe that this deficit will form the main challenge and the main obstacle to peace in this area.

The only possible way for Palestinians to solve their growing water problem is by securing their full water rights both in the Aquifer Basins and in the Jordan River Basin. If this fails, the water crisis will have a tremendous impact on the peace process.

We will defend our lawful and just rights to our water resources. These are based on international laws and principles, such as the equitable and reasonable

utilization of water resources and on all international resolutions, concerning the right of the Palestinian people to self determination and the practice of national sovereignty over its natural resources including water.

I wish this conference success and hope that the scientific papers and your participation will be instrumental in developing the scientific and technical capacities in all political, economical, social and environmental aspects to challenge the problems of the water sector.