

The Role of Supplementary Irrigation for Food Production in a Semi-Arid Country Palestine

By:

**Eng. Mohammed Yousef Sbeih
Irrigation Project Coordinator
American Near East Refugee Aid (ANERA)
P.O. Box 1664
Ramallah, West Bank
Palestine
Email: sbeihmsy@anera-jwg.org**

**Keywords: Palestine, Irrigation, Economics, Supplementary, Irrigation,
Food Production**

Abstract: Palestine consists of the West Bank and the Gaza Strip. The proclaimed state of Palestine has a land area of 6,657km³.

Water is always considered as an essential factor of life and development in arid and semi-arid countries. In Palestine the total per capita water consumption is 139m³.

The total available water for Irrigation is 239 MCM which is responsible for irrigating only 330,000 dunums out of 2,314,000 dunums cultivated that can be irrigated if water is available i.e. 5% of the total cultivated land.

The average rainfall is 450mm and unfortunately there isn't any water harvesting structures i.e. dams, most of this rainwater flowing towards the Dead Sea or the Mediterranean Sea as waste. So harvesting this water in individual farmer land and using this water for supplementary irrigation to irrigate olive trees, almonds, grapes and cereals will be of a great impact on the Palestinian land for feed production. It should be noted that there are few farmers who practice supplementary irrigation for production of vegetables that are planted in summer as individual initiative. The quantity and quality of production that they have is extremely tangible.

Since most of the land in Palestine is planted by olive, grape, and cereals, supplementary irrigation should be introduced and practiced where the production of wheat via irrigation by treated wastewater was three times that under rain fed planting project implemented in a pilot project.

Reuse of treated wastewater for irrigation as supplementary irrigation will increase the irrigated area in Palestine and will replace the fresh water that can be used for domestic purposes.