

Water Harvesting in West Bank

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Agro-ecological regions in West Bank:

West Bank was classified into four major agro-ecological regions based on several factors including climate, topography, soil types and farming systems, as follows :

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a-The Jordan Valley Region:

- This region lies 90 – 375 meters below sea level.
- The climate is semi-tropical, characterized by hot summers and warm winters.
- Annual rainfall ranges from 200 mm in the northern part of the valley to 100 mm in the south.

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b-The Eastern Slopes Region:

- This zone represents the semi-desert climate as transitional zone between the true Mediterranean and desert climate.
- It is located between the Jordan Valley and the Central Highland Regions.
- The average annual rainfall is about 150-300 mm.

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C-The Central Highland Region:

- This region includes a range of mountains and their western slopes and extends over the length on the central parts of the West Bank. It ranges in elevation from 400 m up to 1020 m above sea level.
- The average annual rainfall ranging from 300 mm in the southern foothills to about 600 mm in the northern mountains areas.

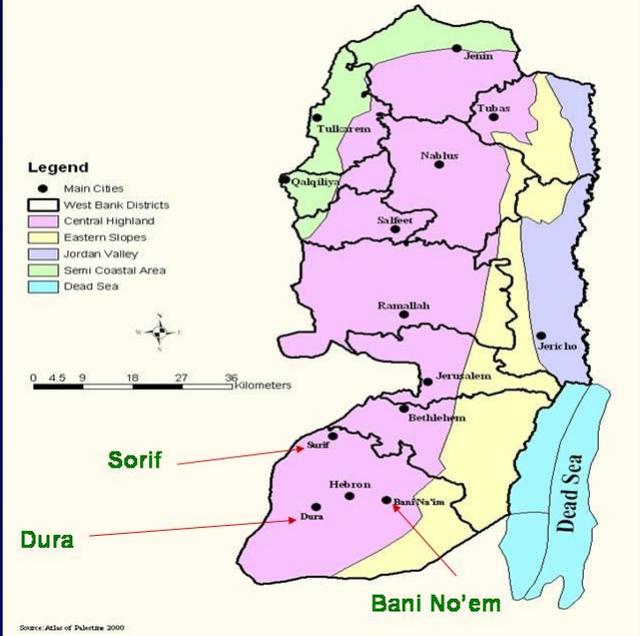
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d-The Semi-Coastal region:

- It is limited to the northwest part of West Bank and comprises parts of Jenin, Tulkarm, and Qalqilya Governorates.
- Elevation varies between 100 to 300 meters above sea level.
- Relatively high average annual rainfall is about 400 to 700 mm.

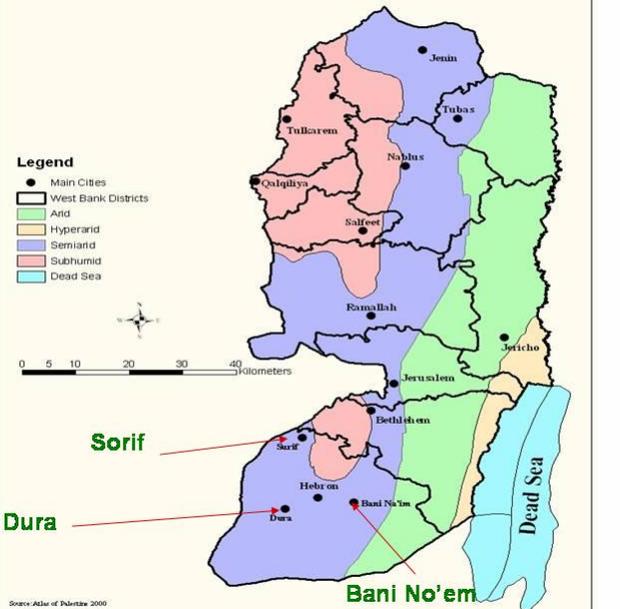
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Ecological Zones Map of West Bank



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Aridity Zones Map of West Bank



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Hydrology

- * The mean annual rainfall as a long term average, ranges between 500 and 600 mm per year with an average volume of about 3000 MCM/year.
- * Of these approximately 600-650 MCM/ year infiltrates into the soil and rock strata to recharge the ground water basins.
- * The long term average volume of evapotranspiration is approximately 1950 MCM/year.
- * Flood runoff in the Wadis in the West Bank is estimated at 64 MCM/year.

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Surface water resources

- * Runoff in West Bank is estimated at 64 MCM/ year.
- * Runoff has not been utilized or controlled on a large scale in the West Bank.
- * A small scale utilization in some villages where cistern are constructed to capture rain water to meet their domestic needs.
- * The main flood wadis in the West Bank divided according to the flow direction:
 - The Eastern and Northern flood wadis (18.57 MCM/ year).
 - The Western flood wadis (17.91 MCM/ year).
 - In addition to small scale wadis (15 MCM/ year during the wet season).

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Water harvesting practices in West Bank

- * **Cistern:** Collect water mainly from the roof of the houses in cistern for drinking.
In rangeland water collected from micro-catchment for animal use.
- * **Open ponds:** Collect water from the wadis for agricultural uses.
- * **Contour bench terraces:** mainly in the central highland and western slopes, and used for fruit trees growing (grapes, olives, peaches, apricots, figs, ...).
- * **Jessour system:** Built at the bottom of the valleys for agricultural growing (vegetables and fruit trees).

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