

Israel State of (Medinat Yisra'el)

Last updated: 31-01-2004

Location and area

Israel is a republic in the Middle East, on the eastern shore of the Mediterranean Sea. It is bordered to the north by Lebanon, to the northeast by Syria, to the east by Jordan, and to the southwest by Egypt. Its southernmost tip extends to the Gulf of Aqaba, an arm of the Red Sea; Israel's area is 21,946 km². (This figure includes East Jerusalem and other territory that Israel annexed after the Six-Day War in 1967; most countries do not recognize the annexation of East Jerusalem. The other areas seized during the war were the Gaza Strip, the West Bank region of Jordan, the Golan Heights area of southwestern Syria, and the Sinai Peninsula of Egypt. However, the Sinai Peninsula was returned to Egypt by 1982 under the 1979 Peace Agreement, and Palestinian self-rule took effect in the Gaza Strip and the West Bank town of Jericho in May 1994). (Microsoft Encarta Encyclopedia 2002).

Topography

Israel can be divided into five major topographical areas:

- The hills of Galilee dominate the northern section of Israel, extending east about 40 km from a narrow coastal plain across to Lake Tiberias (also called the Sea of Galilee). Israel's highest point, Mount Meron (1,208 m), is in this area.
- To the south lies the Plain of Esdraelon (also called the Plain of Jezreel), running from the vicinity of Haifa on the Mediterranean coast to the River Jordan. Formerly a malarial swampland, the valley has been drained and is now a densely populated and productive agricultural region.
- The coastal plains along the Mediterranean, consisting of the Plain of Zevulun, the Plain of Sharon, and the Plain of Judaea, from Tel Aviv-Yafo to the city of Gaza, contain most of Israel's large cities, industry, and commerce.
- The Judaean and Samaritan Hills form a barrier running north and south throughout most of Israel.
- The Negev is a desert region to the south. The desert extends north from the Gulf of Aqaba to a line from the southern end of the Dead Sea to the Mediterranean, passing just south of Beersheba. (Microsoft Encarta Encyclopedia 2002).

Climate

The climate of Israel is generally Mediterranean subtropical, with rainfall generally limited to the winter months. In January temperatures average 9° C in Jerusalem and 14° C in Tel Aviv-Yafo. In July the average temperature is 23° C in Jerusalem and 27° C in Tel Aviv-Yafo. Rainfall is poorly distributed, varying from about 1,000 mm annually in Galilee to about 540 mm in Tel Aviv-Yafo and approximately 25 mm at the southern port of Elat. (Microsoft Encarta Encyclopedia 2002).

Water

The chief river of Israel is the Jordan. It descends from Mount Hermon on the Lebanon-Syrian border to Lake Tiberias, some 209 m below sea level, and ultimately into the Dead Sea, approximately 395 m below sea level, the lowest point in Israel.

The water supply in Israel is extremely limited and unevenly distributed. More than one quarter of Israel's water supplies have come from the West Bank; watercourses from Lebanon have been diverted to augment supplies. (Microsoft Encarta Encyclopedia 2002).

Land use

Described in the Bible as "a land of milk and honey", the area that is now Israel is recently barren and infertile. Only 17 % consists of arable land, yet the country meets almost all of its food needs, and certain items, chiefly citrus fruits, vegetables, and eggs, are exported (Microsoft Encarta Encyclopedia 2002).

Peatlands

Reifenberg & Moshicky (1941) described the chemical composition of peat of the Huleh peatland. Schneider (1958) describes a 32 km² large peatland north of lake Huleh, being the northernmost location of the tropical *Papyrus*. He furthermore mentions some other smaller peatlands.

Schallinger (1969 in Tibbets 1969) mentions the total area of "peat soils and transition soils" (transition soils have an organic matter content < 20 %) in the Huleh (Hula) Valley to be about 12,000 acres (= 48.56 km²). Furthermore he mentions small peatland areas located in different parts of the country, including Wadi Kubani, Wadi Faliq, Zevulun Valley, and Ain Arus, south of the Dead Sea.

A figure of 50 km² is used by Moore & Bellamy (1974) for the area of "peat resources" of Israel, by Schneider (1976, 1980), Schneider & Schneider (1990), and by Pfadenhauer et al. (1993), Kivinen & Pakarinen (1980, 1981) and Markov et al. (1988) for the peatland area (> 30 cm peat). Bord na Mona (1985) uses that figure for the "peat area" (peat thickness 1-12m), Shrier (1985) for the "mire area", Markov et al. (1988) for the area of „peat resources“ (peat thickness not mentioned), and Andriess (1988) for the extent of organic soils.

Lappalainen & Żurek (1996b) mention a "peatland" area of 48 km². An important area of peatland were the Hula marshes near Lake Hula, from which > 65 km² of "peatland" were drained and cultivated since 1950 (Carp 1980, Schneider & Schneider 1990, Gophen 2000). According to the interpreted World Soil Map (Van Engelen & Huting 2002) no histosols exist in Israel and 93 km² of gley soils.

Mire and peatland losses

Schneider (1958) mentions the "technical utilization" of small peatlands and refers to the delivery of a German peat bagger to Israel. Tibbets (1969) mentions that the whole Huleh area was drained for agriculture in the 1950s. Moore & Bellamy (1974) mention that 50 km² of "peatlands" are under agricultural cultivation in the northern part of the country. Markov et al. (1988) mention that 30 km² of the 50 km² were drained for agriculture or for peat extraction (18 – 20 t of peat per year).

Still to be checked:

Atzmon N. & Henkin, Z. 1996. Field performance of four tree species planted on islands in newly flooded area of Hula plain in the upper Jordan valley. Sixth International Conference of the Israeli Society for Ecology and Environmental Quality Sciences. Jerusalem, Israel.

Hurwitz, S., Lachower, D., Plaut, M. & Goldin, E. 1955. Fertilizing value of „Huleh peat“. *Materiae vegetabiles. Acta cult. et prepara. Pla.* Band 2 (in Schneider 1958).

Ravikovitch, S. 1948. Peat soils and soils rich in organic matter in the Huleh Valley, Israel. Agricultural Research Station, Bulletin No. 47, Rehovot.

Schallinger, K.M. (ed.) 1979. Proceedings of the International Symposium „Peat in Agriculture and Horticulture”. Int. Peat Soc. Comm. III. Spec. Publ. 205, Division Sci. Publ, Bet Dagan, Israel, XII + 296 p.

Shoham, D. and Levin, I. 1968. Subsidence in the reclaimed Hula swamp area of Israel. The Israel Journal of Agricultural Research 18:15-18.