

The Deterioration of the Environment

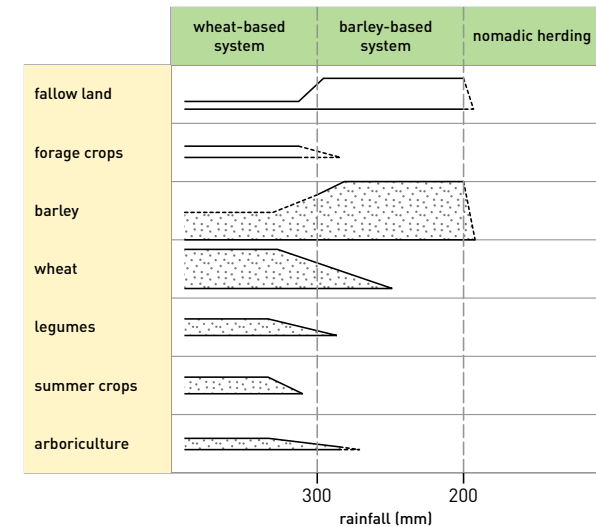
The different types of Mediterranean landscapes along the Levantine coastline (orange fields and market gardening on the plains, olive groves and cereals on the hills and plateaus, scrubland and terraced crops in the mountains) have deteriorated as a result of the growth of uncontrolled urbanisation. The idealized image of Lebanese villages with red rooftops surrounded by terraced gardens has given way to an entanglement of apartment buildings constructed without regard to any kind of land use plan. The Syrian coastline is better preserved, in spite of itself, because of the economic underdevelopment of the country. The pine and cedar forests that once covered the mountains are disappearing nevertheless. In the Cedar Massif in Lebanon there remains only a cluster of trees protected by a stone wall built in the nineteenth century thanks to a donation from Queen Victoria. Clear-cutting and overgrazing since Roman times have done away with these majestic forests. Strict regulations are supposed to protect them, but their application leads to the opposite effect. The law prohibits cutting down the trees and bringing herds into the forest, because the undergrowth then takes over, and they are left more vulnerable to forest fires. Since the forest is of no economic importance to the population, it is sometimes intentionally set on fire to gain farmland or facilitate building activities.

In the Maamoura the natural vegetation, which consists of short grass and bushes, has disappeared and been taken over by bare fields and olive groves, pistachio trees, and other stone fruit trees (cherry, apricot, plum, etc.) that are able to withstand the

rigours of winter and the extreme summer heat. The Maamoura is a natural victim of the inter-annual rainfall variability, although the scope of this fluctuation currently depends less on the annual variation of rainfall than on the agricultural over-exploitation and urban sprawl. The degradation of the vegetation is extremely pronounced in northern Syria due to predatory agricultural practices and the regression of irrigation. In this context, the climatic evolution in the region is reason to worry for the future. The temperature is expected to rise 3 to 4 degrees centigrade by the year 2050 with rainfall diminishing by 0 to 40 mm per year depending on the area. The decrease in rainfall should be greater in Anatolia (from 0 to 80 mm), and this will have direct repercussions on the flow volume of the Tigris and the Euphrates downstream. Since the 1990s the Syrian government, in an effort to deal with this soil depletion and the overexploitation of water resources, has prohibited farming below the isohyet of 200 mm (with the exception of the areas irrigated by the state). This is an arbitrary limit since this isohyet fluctuates widely according to dry or wet years; still, it makes it possible to protect the arid margins from irreparable destruction. Without vegetation, wind erosion quickly carries away the lighter soils and forms dust winds that damage the cultivated areas; this is similar to the famous dust bowl that occurred in the 1930s in the United States.

The arid Near East is more steppe than desert. Vegetation is completely absent only in southern Jordan, where the vast Arabian desert begins. The environment is thus favourable for extensive

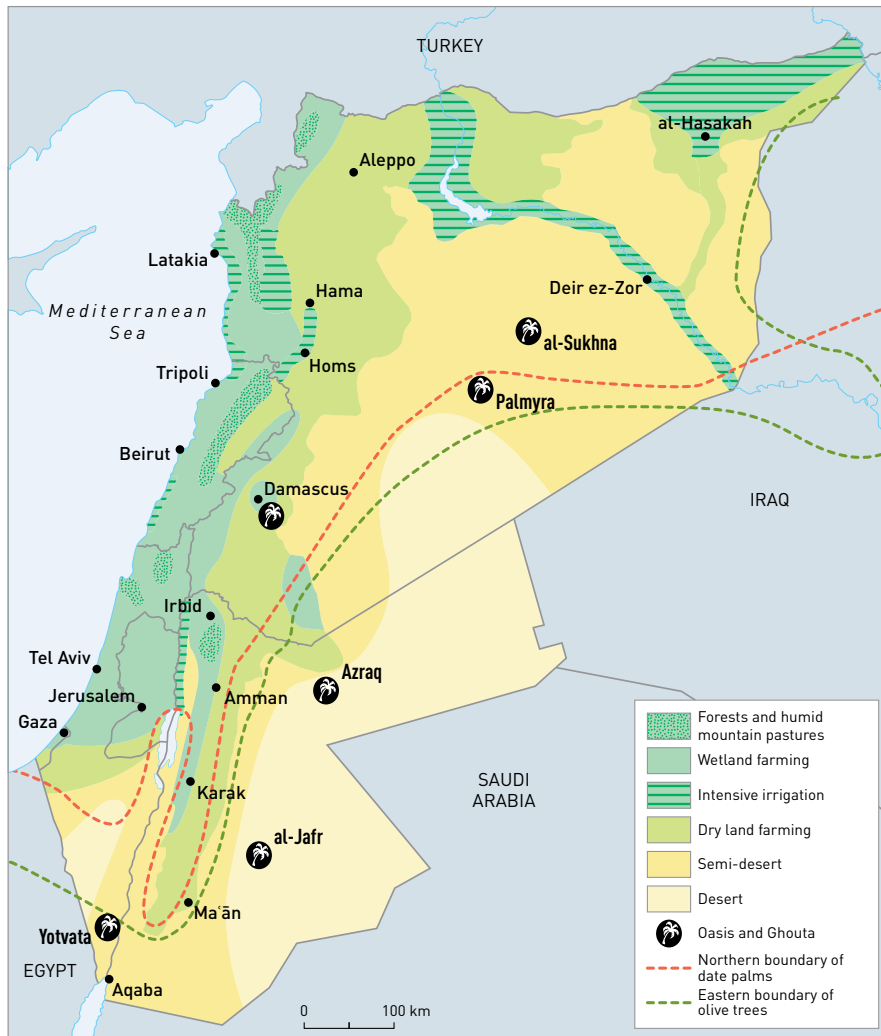
TYPOLOGY OF AGRICULTURAL SYSTEMS IN SEMI-ARID AREAS



Source: Jones, ICARDA, 1993.

nomadic herding; the herds migrate between the steppe in winter and the stubble fields of the Maamoura in summer. During the dry years the Bedouins go as far as the coastline to feed their herds. Certain tribes have even settled there, giving birth to villages such as Arab al-Chateh, south of Tartus, populated by nomads who brought their herds to graze on the Akkar plain. The steppe has a few oases: Azraq in Jordan, al-Sukhna, and especially Palmyra in Syria. The overpopulation of the oases and the development of tourism bring with them an overexploitation of groundwater that challenges their existence. The situation in Palmyra is especially critical; the construction of a water conduit between the Euphrates and Damascus going through Palmyra would make it possible to save the palm groves, but it is a long and costly project that may not come into being.

ENVIRONMENTS IN THE MIDDLE EAST



Fabrice Balanche, based on *Tübinger Atlas des Vorderen Orients*.

DEFORESTATION IN LEBANON



Based on: *Atlas du Liban*, CNRS Lebanon, 2004.