

LAND REALITIES AND CONCERNS

A *dama*, “the earthy one” is the eponym of the first man in Hebrew. It reflects the tremendous importance attached to the soil in this region of the world, which was the first to undergo the transition from fishing to crop-growing.

OBVIOUS LAND INEQUALITY

Whereas the chemical and biological properties of soils depend mainly on the nature of the bedrock (dolomites, limestones, etc.), the climate, vegetation and anthropic activities are clearly also factors which influence soil formation. Soil depth, on the other hand, is attributable to climate, since high temperatures and low humidity considerably reduce the bedrock degradation process. Due to the aridity of certain Mediterranean countries considerable expanses of soil are absolutely skeletal, prohibiting any form of agriculture. In Algeria, Jordan, Libya and Egypt, for example, the acreage of arable land accounts for less than 5% of the total area of the country, compared to 34% in France and 29% in Italy. The numerous desert expanses serve essentially as rangeland for animals, as is the case in the *badiya* in Syria. This aridity is compounded by the problem of gradient: half of Turkey is at an altitude of over 1000 m, for instance, and half of Spain over 600 m; over 80% of the land in Albania and Slovenia is mountainous. So, all in all, a large proportion of the land in the Mediterranean region is subject to major natural constraints, which are an obvious obstacle to agriculture, and the land gap between the northern and southern shores is very real, given that the constraints on the two shores are not the same. The northern Mediterranean countries with their areas of arable land and permanent crops that are greater in both absolute and relative terms have an obvious advantage. ■

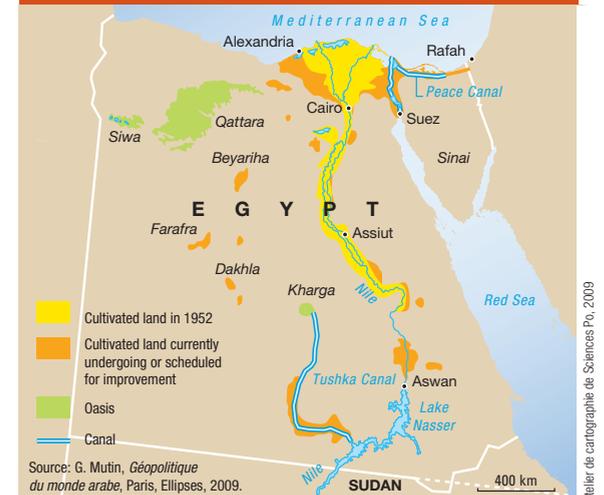
But circumstances can evolve, and some southern and eastern Mediterranean countries – Egypt and Syria in particular – have improved new areas of land with a view to turning them into agricultural land. Thanks to the Aswan Dam, the water of the Nile can now be used to irrigate areas of land where there was previously no irrigation, particularly on the margins of the delta. However, population growth is reducing the per capita acreage of arable land and making it imperative to increase productivity in order to offset this drop in ratio. Not to mention the fact that settlements are increasingly encroaching on arable land due to urbanisation and the development of tourism.

LAND UNDER STRESS

Over and above the phenomena of eviction from the land, there are many factors which affect the soil: erosion due to gradient, wind, crop-growing practices, heavy rainfall or overgrazing, but also pollution phenomena caused mainly by the massive use of pesticides and fertilisers. The surplus of phosphorus that is released by chemical and organic fertilisers alters the organic and structural balance of the soil. And then there is the process of soil salinisation, which is unfortunately taking on massive proportions on the southern shores. This is happening because groundwater that is subject to marine intrusion or dam water that is exposed to active evaporation in hot climates, which concentrates the salt content, is used for irrigation. It also happens when irrigated land is not well-drained, since salts then accumulate with time. Erosion and salinisation phenomena can gradually cause soils to lose productivity and can even result in desertification, which is the disappearance of plant cover. This process is said to be affecting 80% of the arid land in the southern and eastern Mediterranean region. ■

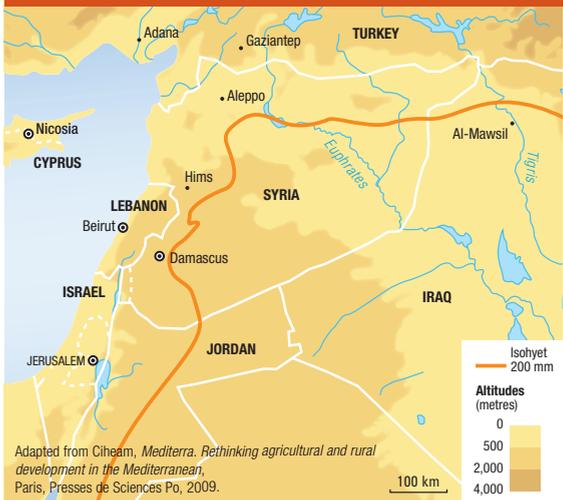
RECLAIMING LAND IN EGYPT

The construction of the Aswan Dam enabled Egypt to intensify land use both vertically and horizontally and thus to considerably expand the area of arable land. Vertical intensification refers to the practice of growing two or three crops on the same plot in one year, since flooding has been considerably reduced. And horizontal intensification refers to the expansion of the agricultural area through the irrigation of land which without water is unproductive. The first areas that were reclaimed were concentrated in the delta. The current land improvement measures concern regions outside the Nile Valley.

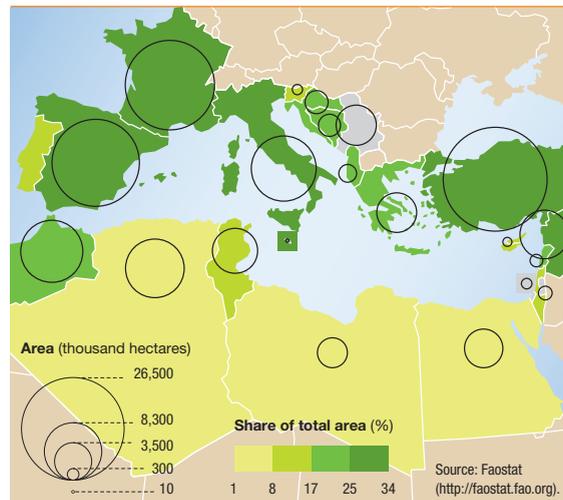


SYRIA: THE BURDEN OF ARIDITY

Syria has several river valleys (the Orontes and Euphrates Valleys, the Damascus Ghouta, and the Khabur Valley), where populated areas and agriculture are concentrated. But Syrian territory also includes the badiya, a region which in fact comprises all areas with an annual rainfall of less than 200 mm. The badiya accounts for 55% of the national territory but has a population of just between 1 and 1.5 million people. The land on the rim of the badiya can be cultivated thanks to a groundwater pumping system, but (since the beginning of this century) the authorities have been tending to tighten up on the rules for using underground aquifers, thus putting an end to the laissez-faire policy that has prevailed since the 1950s.



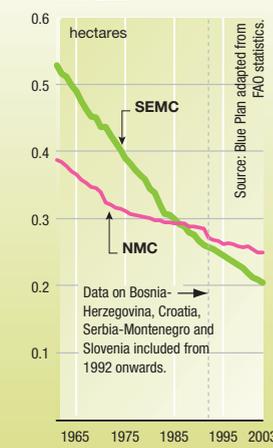
ARABLE LAND, 2005



Net loss of arable land between 1980 and 2005

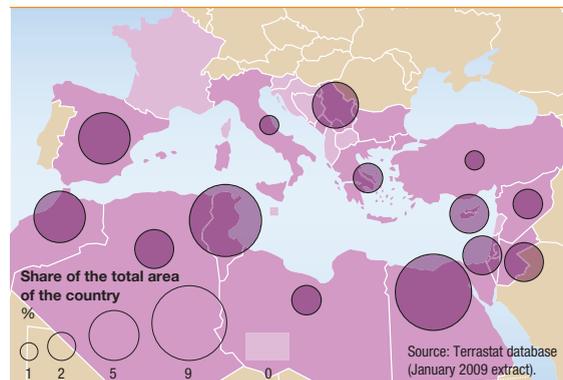


Arable land per capita 1961-2003



Atelier de cartographie de Sciences Po, 2009

SALINISED AREAS



EROSION IN SPAIN

Soil erosion is a particularly serious problem in Spain. According to ICONA (Instituto nacional para la conservación de la naturaleza), at 12 tonnes of material per hectare the erosion rate is high for almost half of the area of the country, i.e. 20 million hectares, and has reached the limit of the acceptable. Erosion is very severe on 12% of the territory, where 50 tonnes of material are being removed per hectare. Agro-environmental measures designed to reverse this massive phenomenon include avoiding soil tillage in the direction of the main slope, reforesting agricultural land and introducing more extensive production systems.

Atelier de cartographie de Sciences Po, 2009