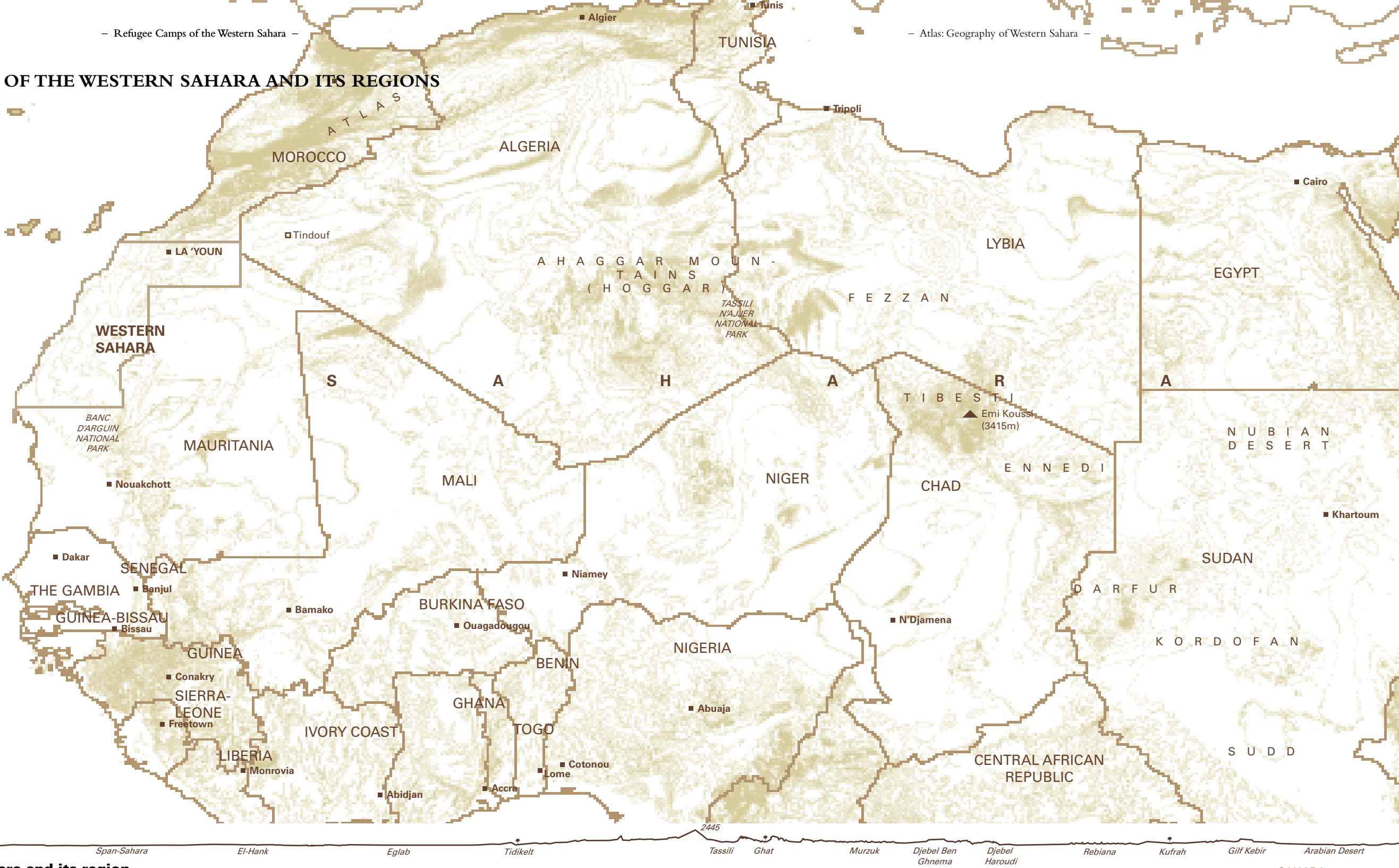


GEOGRAPHY OF THE WESTERN SAHARA AND ITS REGIONS
TOPOGRAPHY



The Western Sahara and its region

Western Sahara borders the Atlantic Ocean, Morocco, Algeria and Mauritania. The land is one of the most arid and inhospitable regions. Due it is sparsely populated. Nevertheless it is rich in phosphates. The Western Sahara is on

the boarder of the **Sahara**. The biggest desert in the world stretches from the Atlantic Ocean on the West across North Africa to the Red Sea and highlands of Ethiopia. It contains a variety of forms: rocky plateau, pebbly plain, dunes of

shifting sand, mountainous escarpments
The central core has rare, almost no rainfall. This “dead” land is not lifeless. In this dried vegetation we can find insects, scorpions or lizards.

SAHARA
Arabic: **الصحراء الكبرى**, English: The Great Desert
Area: 9,00,000km²
Highest point: Emi Koussi 3,415 m
^{3,5} Length: 4,800 km E/W Width: 1,800 km N/S

POPULATION, CLIMATE, FAUNA, FLORA, SOILS

POPULATION OF THE SAHARA

Two thirds of Sahara's population (2 million inhabitants) live in oases, where date palms, vegetables, fruits and other crops are produced under irrigation. Nomads, mainly in drier areas, continue to use/create oases, including modern oasis created by the drilling of wells. Principal ethnic groups in the Sahara: *Tuareg, Berber, Arab, Tibu*¹

CLIMATE

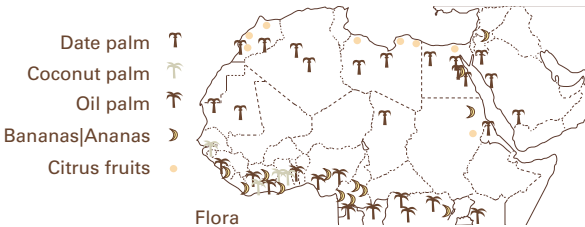
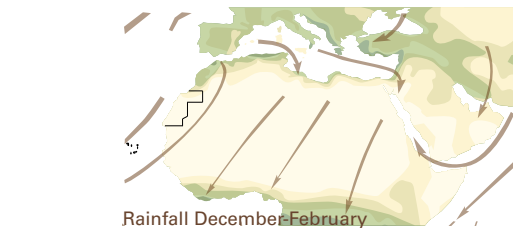
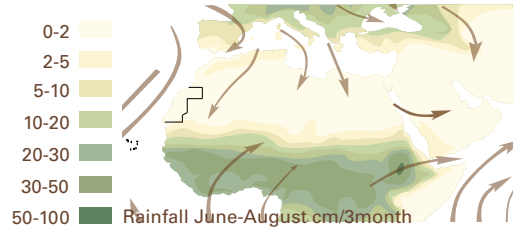
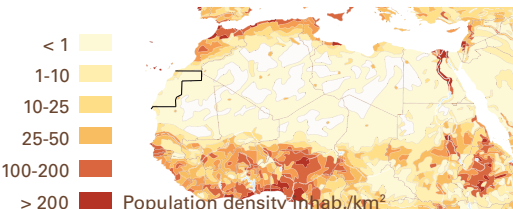
The climate of the Sahara traverses enormous variations between wet and dry. The Sahara is located in the trade wind belt. Winds blow constantly from the northeast. They are known as *Sirocco, Khamsin, Simoon or Harmattan*. These winds reach often hurricane speeds. Rainfall is sparse and variable. The annual total average is less than 12.7 cm. Long dry periods can sometimes last for years. The southern part receives rain in summer, the Mediterranean coast in winter. Daytime temperatures are high. The world's highest official temperature in the shadow was recorded in Azzizia, Lybia (58°C). At night it loses heat rapidly. From December to February freezing temperatures are common. Generally the Sahara is divided in two sub-climates; a dry subtropical climate in the north and a dry tropical climate in the south.^{1,2,3}

FLORA

Three quarters of the Sahara are without vegetation. The flora of the Sahara is estimated to have 1200 species, about 104 families.³ Because of the hard conditions, plants have small leaves and long roots. In Bed Rivers we find tamarisks and acacias. In the region near gueltas only laurel and cypress trees remain. The Arabs introduced the Date palms. Dates are very energetic food and are important for humans in the oasis

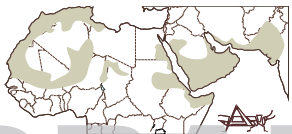
FAUNA

Animals have adapted to the extremely conditions of the desert. They live in strategies to preserve water and avoid hot weather: Thick skin and underground life for scorpions, coloured skin reflects the sun, search for water and food at night, large ears to regulate calorific waste, short hair for better thermolysis. Most common animals in the Sahara: *Addaxes, gazelles, fennecs, camels, cheetah, ostrich, goats, monitor lizard, sand vipers, death stalker scorpion*.¹

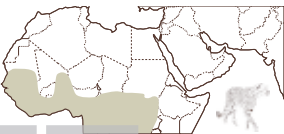


SOILS

Shifting sands and bare rock occupy about one-fifth of the Sahara. More than half of the area comprises soils known as *ymosols*.³ The south-eastern part of Western Sahara is covered by large NE-SW striking dune accumulations. The major part contains soils. Western Sahara has only one significant mineral production, the phosphate mine at Bou Craa (central-northern West Sahara). Over the past years the production of phosphates was stable, 1.5mt/year. The exploration for hydrocarbon in Tarafaya was not yet successful.⁴



Desert Locust
Schistocerca gregaria



Cheetah
Acinonyx jubatus



Desert fennec
Vulpes zerda



Dromedary
Camelus dromedarius

WESTERN SAHARA

Area: 266,000 km2
Population: 513,000 (2009 estimate)

ALGERIA

Area: 2,381,741 km2
Population: 35,423,000 (2010 estimate)

MOROCCO

Area: 458,730 km2
Population: 32,200,000 (2009 estimate)

MAURITANIA:

Area: 1,030,700 km2
Population: 3,291,000 (2009 estimate)



STRUCTURE

- Thrust fault
- Cambrian
- Phosphate

GEOLOGICAL OVERVIEW⁴

- Mainly dunes
- Sabkhas, lake deposits, dunes
- Mainly consolidated sand formations
- Sediments
- Marine sediments
- Sediments and low-grade metasediments
- Mainly marine sediments
- Mostly marine sediments
- Gneisses, marbles, quartzites
- Granites, gneisses, migmatites
- Granites
- Metamorphic rocks related to the Mauritanide orogeny
- Basic / ultrabasic intrusive rocks
- Basic igneous complex
- Silurian to Ordovician
- Cambrian
- Devonian
- Quartzites, limestones with stromatolites