

# Chad

Total population (July 2000 estimate): 8,425,000

Area: 1,284,000 km<sup>2</sup>

Annual population growth rate (2000): 3.31%

Life expectancy at birth (1998): 47.5 years

People not expected to survive to age 40 (1998): 36.9% of total population

GDP per capita (1998): US \$856



Chad is a landlocked country in the centre of the African continent with three distinct climatic and vegetation zones:

- the northern parts consist of Sahara desert environments (average annual precipitation 25 mm),
- the central part is bush-covered steppe (average annual precipitation 250-500 mm),
- the southern part is wooded savannah with average annual rainfall in excess of 500 mm.

Chad consists of a large peneplain deeply cut by rivers that drain into Lake Chad.

The national economy of Chad is largely based on subsistence agriculture. More than 90% of the population is involved in pastoralist or agricultural activities. The agricultural sector accounts for 36% of the GDP. The main food crops are mainly sorghum, millet, maize and groundnuts. Other major crops are rice and sugar cane. The major export crop is cotton.

Until recently, the mineral and energy industry of Chad did not play a significant part in the national economy. Soda ash and salt were the only mineral commodities produced, primarily for domestic consumption. However, this situation will change with revenues from the discovered oil resources in the Doba - Sarh area of southern Chad (Kusnir and Moutaye 1997). The Doba oil field is estimated to contain 1 billion barrels of oil. Three hundred wells are expected to produce 225,000 barrels a day. The building of a 1070 km long pipeline to an export terminal near Kribi in Cameroon is in progress. Crude oil is expected to start flowing through this pipeline in 2003.

### **Geological outline**

The geology of Chad is characterized by Precambrian and younger sediments surrounding the central Chad Basin. Precambrian rocks occur in the Tibesti Mountains in the north and consist of undifferentiated granites and gneisses in the eastern part of the country. Lower Paleozoic sandstone sequences in the Kufra Basin in the northeast (at the border with Libya and Sudan) are overlain by Nubian sandstones. The Lower Cretaceous is characterized by continental clastic sequences and the Upper Cretaceous includes up to 400 m thick marine sediments. Tertiary continental sediments cover parts of southern Chad. Lacustrine sediment sequences (the Chad Formation) comprise large parts of the Chad basin (OECD/NEA 1980). Kusnir and Moutaye (1997) provide a summary of the geology and mineral resources of Chad.

### **AGROMINERALS**

#### **Phosphates**

To date, no phosphates have been reported from Chad.

#### **Other agrominerals**

#### **Limestone/dolomite/calcrete**

Large reserves of limestone and dolomite are known in the Lere area along the border with Cameroon and from M'Boursou, north of Lere. In eastern Chad, dolomites and marbles have been described from near Hilleke and Goz Beida (Abdoul *et al.* 1973; Kusnir and Moutaye 1997). Calcretes are common in the area south and southwest of Pala (Abdoul *et al.* 1973), and along the road from Abeche to Fada in the east of the country (Gwosdz 1996).

## **Gypsum**

Several impure gypsum occurrences are noted along the Barh el Gazal between Nedeley and Tellis (Abdoul *et al.* 1973). Most are occurrences of impure gypsum mixed with clays and diatomite in lacustrine sequences.

## **Agromineral potential**

The potential of agromineral development in Chad is limited due to the small resource base and the harsh climatic conditions.

### *References:*

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