

Lesotho

Total population (July 2000 estimate): 2,143,000

Area: 30,355 km²

Annual population growth rate (2000): 1.65%

Life expectancy at birth (1998): 55.2 years

People not expected to survive to age 40 (1998): 26% of the total population

GDP per capita (1998): US \$1,626



Lesotho is a small, densely populated country in southern Africa, completely surrounded by the Republic of South Africa. About 75% of Lesotho is mountainous, with altitudes reaching over 3,000 m. The majority of the population, however, lives in the 'lowlands' at around 1,500 m.

The economy of Lesotho is largely based on agriculture, income from migrant labourers, tourism and natural resource utilization (water, diamonds).

In 1999, agriculture contributed about 18% of the GDP. Some 85% of Lesotho's population lives in rural areas and farming is mainly at the subsistence level. The main food crops are maize, sorghum, wheat and beans. The performance of the agricultural sector in Lesotho continues to decline, largely because of reduction in the area that is suitable for cultivation. Climatic variations, soil degradation and soil erosion are other causes for this decline. The deterioration of soil quality and quantity is one of the primary concerns along with water resource management issues.

The mineral sector of Lesotho is very small. The main mineral commodity extracted in Lesotho is diamonds, mainly from alluvial sources. The source rocks for diamonds in Lesotho, kimberlites, are currently being re-investigated on their resource potential. Small but uneconomic uranium occurrences are also reported from Lesotho. Sand and clays, as well as flagstones, are utilized for the local building industry.

Geological outline

The rocks exposed in Lesotho are almost entirely of Triassic and Jurassic age, belonging to the Karoo Supergroup (Schmitz and Rooyani 1987). The Karoo sediments were largely deposited in continental environments. Large parts of Lesotho are made up of basalt flows of the Drakensberg Group. The kimberlite pipes and dykes occurring in northern Lesotho are of lower Cretaceous age.

AGROMINERALS

Phosphates

Small amounts of phosphates have been found at several locations in Lesotho, mainly in nodular form in the lower Elliot Formation of the Karoo Supergroup. At one site, two diffuse bands and lenses of pale coloured nodular phosphatic sediments, 10-20 cm thick and 5-10 m long, were observed. The nodules are slightly radioactive (470-800 ppm U_3O_8) and contain 15-24% P_2O_5 (Reed 1978; UNDP 1984). In places, the nodules contain reptile bones.

The quality and quantity of these phosphate occurrences have not been studied in detail but appear to be very small and of poor quality.

Limestone

Small amounts of limestones occur in the lowlands of Lesotho. Nodular limestones and irregular lenses of limestone have been described in the Elliot and Clarens Formations of the Stormberg Group (upper Triassic-lower Jurassic).

Natural zeolites

Only very small volumes of natural zeolites have been found in Lesotho. Zeolites occur in vesicles in the Lesotho basalts. Their volume is too small to be of any economic interest. There are, however,

considerable volumes of vitreous tuffs and tuffaceous sediments in the Elliot and Clarens Formations and some of these vitreous tuffs could be zeolitic.

Agromineral potential

The potential of finding extensive phosphate deposits in Lesotho is very low. Also the potential of developing some of the local limestones for agricultural purposes is low. However, the chances of finding zeolite accumulations in the vitreous tuffs and tuffaceous sediments of the Elliot and Clarens Formations are regarded as good.

References:

- Reed JJ 1978. Radioactive occurrences in Lesotho. Special Report JR/6, UNDP, Project LES 73-021- Exploration for minerals, Phase II, Lesotho, 12pp.
- Schmitz G and F Rooyani 1987. Lesotho, geology, geomorphology, soils. National University of Lesotho, 204pp.
- United Nations Development Programme 1984. Exploration for diamonds (Phase I), exploration for minerals (Phase II). Technical Report, United Nations, New York, 252pp.