This map shows the soils of the eastern Democratic Republic of the Congo, southern Tanzania, northern Malawi, northern Mozambique and Zambia.

The major geographical feature of this map is the Rift Valley with the great African lakes of Tanganyika and Malawi. Lake Tanganyika is the world's second deepest, second largest (by volume) and longest freshwater lake.

The Rift Valley is a vast tectonic depression where large segments of the Earth's crust have subsided between fault lines. Extensive volcanic activity is associated with this process and gives rise to Andosols. Either side of the Rift Valley, the land rises steeply. To the west, high mountains drop down to the Congo Basin while to the east, the terrain is very dissected with deep valleys and plateau surfaces running down to the Indian Ocean coast.

While the Congo Basin and the narrow Indian Ocean coastal plain have a hot and tropical climate, most of the eastern part of the area shown on the map possesses a dry savannah climate, typified by seasonal variations in temperature and precipitation. Summer temperatures range from 25-30°C but drop in winter and significantly with altitude. Rain falls in a single wet season (summer) and is highest over the rift highlands and coastal islands (2 000 mm). However, most of the region receives between 600 – 1 500 mm, decreasing from north to south in the east.

Where precipitation levels are high, forests grow. However, the plateau areas are primarily miombo woodland, consisting of an open cover of trees and grasses. In areas of less precipitation, bushland and thicket are found, giving way to grassland in more arid conditions.

To the west of the Rift Valley, the soil pattern reflects the long and intense weathering of the eastern part of the Congo Shield, an ancient, stable rock formation. Extensive Cambisols and Ferralsols, the classic red or yellow deeply weathered soils of the tropics, characterise much of the Congo Basin. Acidic Acrisols denote soil formation on granitic rocks in undulating terrain. Leptosols and Luvisols define the soils on the slopes of the high mountains flanking the Rift Valley. Dark, clay-rich Vertisols have formed on flat terrain or valley floors from the weathered sediments of relatively recent volcanic deposits. Gleysols and Histosols denote low-lying areas where water logging is a prominent factor. The Bangweulu Swamps and the Kafue Flats are wetlands of international ecological importance.

To the east of the Rift Valley, the pattern is a little more complex. The undulating terrain and variation in the chemical make-up of parent material gives a mosaic of soil types. The continuous uplift of the area is reflected in the extensive areas of weakly developed Cambisols. Nitisols occur on gentle slopes, while acidic Acrisols and clay-rich Luvisols indicate soil formation where relief is more pronounced. Sporadic formations of Vertisols reflect soil formation from weathered basic volcanic deposits. The extensive Fluvisols in central Tanzania denote the floodplains of the Rufiji River and its tributaries, in particular, the ecologically important wetlands of the Great Ruaha River.

To the south, increasing aridity and predominance of grassland savannah give rise to extensive Lixisols.

SCALE 1:3 000 000

1 CENTIMETRE = 30 KILOMETRES; 1 INCH = 47.3 MILES

0 100 200 km

0 50 100 miles

PROJECTION: Lambert Azimuthal