

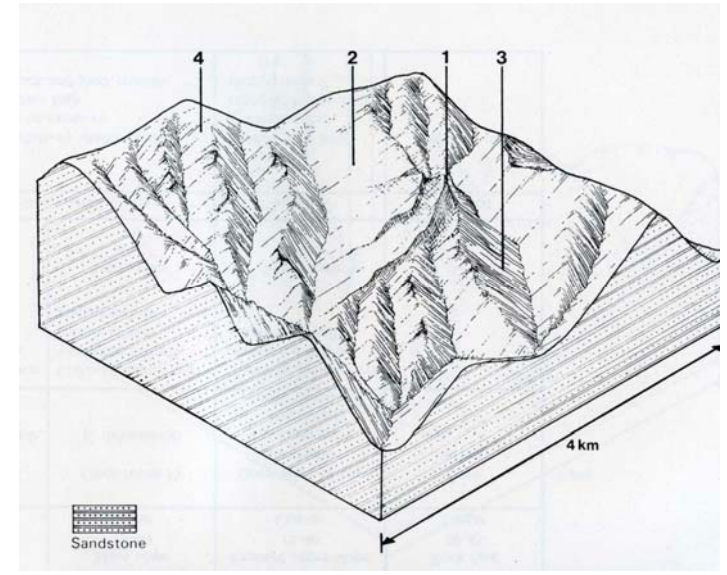
### 7.13 Koonika land system

The Koonika land system consists of steep to sometimes precipitous mountain slopes on Carboniferous sedimentary rocks in the south-west of the study area. The areas in the north are warmer and drier than the southern areas. Annual rainfall is high and persistent winter snow is typical on higher areas. Summers are generally warm to hot, and winters are cold.

Soils are mainly friable brown gradational soils. Stony loam soils are common, particularly on the drier, exposed steep slopes, and at the upper elevations the gradational soils grade into organic loam soils. Weakly bleached reddish brown gradational soils occur on the drier, lower-elevation areas in the north.

Dry areas carry a native vegetation comprising open forest of *Eucalyptus macrorhyncha* and *E. dives*, and rock slopes such as on Mount Typo have heathland of *Calytrix tetragona*. With increasing rainfall and elevation, open forest of *E. radiata*, *E. rubida* and *E. dives* gives way to patches of *E. delegatensis* and ultimately to *E. dalrympleana* and *E. pauciflora*.

Because of the steep slopes and shallow soils, destruction of the ground cover could result in excessively rapid surface run-off and significant erosion.



**KOONIKA LAND SYSTEM** Area 94 sq km

<b>CLIMATE</b> Rainfall, mean (mm) Temperature, mean (°C) Seasonal growth limitations	Annual 1000-1500; lowest January (50-60), highest July (150-200) Annual 10-13; lowest July (4-7), highest January (17-20) Temperature – less than 10°C (av): April-September Precipitation – months less than 50% frequency of effective rain: January - February			
<b>GEOLOGY</b> Age, lithology	Lower Carboniferous conglomerate, sandstone, siltstone, shale			
<b>PHYSIOGRAPHY</b> Landscape Elevation range (m) Relative relief (m)	Mountains 500-1500 250			
<b>LAND COMPONENT</b> Percentage of land system	1 8	2 20	3 64	4 8
<b>PHYSIOGRAPHY</b> Land form Position on land form  Slope range (%) Slope shape	Hogback or flat-iron ridge Upper slope  25-45 Linear	Mountain slope Slope between about 1100-1400  15-35 Linear	Mountain slope Slope below about 1100 m  15-30 Linear-Concave	Mountain slope and crest Slope and crest above about 1400m 15-30 Linear-Concave
<b>NATIVE VEGETATION</b> Structure Dominant species	Open heath to low shrubland <i>Leptospermum myrtifolium</i> , <i>Kunzea parvifolia</i>	Open forest IV <i>E. delegatensis</i>	Open forest I to III <i>E. macrorhyncha</i> , <i>E. dives</i> , <i>E. rubida</i> , <i>E. radiata</i>	Open forest II to woodland <i>E. dalrympleana</i> , <i>E. pauciflora</i>
<b>SOIL</b> Parent material  Description Surface texture Permeability Depth (m)	Rock or shallow colluvium  Dry peats or stony loam soils Stony to sand loam High 0.1	Colluvial mantle over weathered bedrock Friable brown gradational soils Sandy loam High 1.5	Colluvial mantle over weathered bedrock Friable brown gradational soils Sandy loam High 1.0	Colluvial mantle over bedrock  Friable brown gradational soils Sandy loam High 0.7
<b>LAND USE</b>	Uncleared; timber production in <i>E. delegatensis</i> forests; some forest grazing; recreation			
<b>SOIL DETERIORATION HAZARD</b> Critical land features, processes, forms	Shallow soils; high surface run-off; sheet erosion	Permeable soils and moderately high rainfall could result in nutrient leaching if natural nutrient cycle is altered.		