
Neab-Kutelab

This important tourist site is situated to the West of Lalibela and consists in a patchwork of forest, open woodland and eroded areas. Over the past century the woodland has suffered from large-scale tree harvesting and in recent decades from severe drought. Many of the mature trees are dying back and natural regeneration is limited, probably due to a combination of overgrazing and water shortage. Heavy herbivory exacerbates soil erosion on steeper slopes and ridges.



Name: **Neab-Kutelab**

Status: monastery
Site Code: WU05
Floristic Region: WU
Region: 3 (South Wello)
Altitude: 2520 m
Latitude: 12° 00' N
Longitude: 39° 04' E

Woodland/forest:

Status: relict

Size: 5 ha

Dominant species:

canopy: *Olea europaea* spp *cuspidata*,
Rhus glutinosa
shrub/ground: *Acyranthus aspera*,
Becium grandiflora, *Calpurnia aurens*

No of woody species: 30

No of species with less than 5 individuals: 2

Threats: drought, grazing, soil erosion

Photograph: Neab-Kutelab nestles below a major cliff as viewed from Lalibella's airport road.

The Neab-Kutelab monastery is extends mainly in one water catchment above and below a rock overhang. The area is a patchwork of forest, woodland, grassland, and bare ground with severe soil erosion in places. The slopes are generally very steep with some flatter areas above the rock overhang. There is a permanent water source just above the cliff and associated with it a small waterfall.

The tree/shrub canopy rarely exceeds a height of 10 m and in many places only scrub (to 5 m) remains. In former times, before *Juniperus procera* was logged out, and as indicated by the large (ca 20 m high) remaining juniper next to the church, the valley bottoms would have been high forest.

The surrounding area is highly populated and extensively cultivated. But for a few shrubs in deep stream valleys and some steep slopes much of the native vegetation has vanished. In fact in the whole region only open scrub remains. The nearest known forest is Yimrana Kirstos to the West of Lalibela with its large stand of *Juniperus procera*. Some notable large trees (*Juniperus procera* and *Olea europaea* spp *cuspidata*) have been spared around a church to the North of Lalibela. Tree resources in the region are limited, even the availability of exotic timber trees (e.g. eucalypts is limited).

History

Neab-Kutelab is an important rock church visited by many tourists who holiday in the nearby town of Lalibela. The church is actually built under a rock overhang and the religious community is relatively small. The woodland has had a long history of degradation, but particularly during the Italian occupation when the majority of the large *Juniperus procera* were felled and transported to Lalibela. Today there is little evidence of tree

cutting but grazing pressure by livestock is high. No active management is being pursued.

Conservation status

This woodland is one of the very few remaining in the Lalibela region. Although all large trees have long been removed, there are 30 species of woody plants in the woodland.



The church is situated under the rock overhang. The woodland is very open in places and many of the steep slopes are severely eroded.



Severe mature tree dieback is observable, most likely caused by a recent period of below average rainfall. The shrub layer is composed of *Calpurnia aurens*.

Threats

In recent decades the lack of rainfall appears to be the most important single factor threatening the survival of the woodland, but mature trees in particular. Indeed, in parts of the woodland all large trees are either dead or suffer from serious crown dieback (see photograph). There is also a high grazing pressure by livestock in much of the area and there does not appear to be any regulation regarding the density of livestock allowed. Especially on ridges and steep slopes there is severe soil erosion, probably exacerbated by heavy herbivory.

Management

Management of livestock is the single most important factor that needs to be addressed if soil erosion is to be controlled. Natural regeneration of most tree species is scarce or entirely lacking and this is probably due to a combination of high herbivory and unsuitable climatic conditions, i.e. a run of below average rainfall following a severe drought in the 1980s. Because of the large number of paying tourists, this monastery is, compared to more remote sites, relatively rich. Some of this revenue could be used to rehabilitate some of the degraded areas.