Emmanuael

A country church catering for a small farming community in a region suffering from severe gully erosion. This small forest still has a number of tall trees although many *Podocarpus falcatus* were cut decades ago to build the church.

Name: **Emmanuael**

Status: church
Site Code: SU11
Floristic Region: SU
Region: 5 (Welkite)
Altitude: 2050 m
Latitude: 08° 05' N
Longitude: 37° 55' E

Woodland/forest:
Status: relict
Size: 1 ha
Dominant species:
canopy: *Podocarpus falcatus*, *Prunus africana*
shrub/ground: *Calpurnia aurea*
No of woody species:
No of species with less than 5 individuals:
Threats: none

Photograph: The forest is on a gently sloping hill, yet areas deforested (foreground) have experienced very severe gully erosion. Most of the trees in the foreground are eucalypts.

Emmanuael is situated on the gently rising western slopes of an escarpment in the centre of a highly populated region. The forest surrounds a church and an unusual triangular open area to the front of it. On either side of the triangle the woody vegetation is no wider than 20 m, in essence forming shelterbelts. Only above the church do the trees make a real forest

Emmanuael forest is similar in species composition to the nearby monastery forest of Mehur Eyesus. However, over the years it has suffered from logging, as a result the tree canopy composition is different with far fewer *Podocarpus falcatus*. This large tree species probably formerly dominated the whole landscape.

The surrounding countryside is heavily populated and has little natural vegetation remaining but for a steep river valley slopes, and other church and monastery forests. Extensive and severe gully erosion has occurred in much of the region. Attempts at controlling this problem with eucalypts has not been successful. Moderate amount of *Juniperus procera* natural regeneration is observable in many eroded areas. Most of the close periphery of the forest the land is grassland with one area allocated for timber production. The site has been planted with some eucalypts.

History
Little is known about the history of this site.but the church was probably established over 100 years and caters for a small agrarian community. The actual church was built some 40 years ago using timber from the forest and the stumps of the logged trees can still clearly be seen. The priest would like to surround the whole forest with a stone wall to prevent all animal intrusions.

Conservation status
Despite past logging this is still has a good set of large trees and is an important part of the local network of protected church forests.

Emmanuael has an unusual triangular open area in the centre of the forest. A substantial wooden fence delimits the inner churchyard.

Juniperus procera regeneration of the steep slopes of a large gully. The dark green trees in the background are eucalypts planted in the main part of the gully.

Threats
Trees are only threatened by the eventual need to replace decaying timber in the church and to maintain the wooden fence around the inner churchyard. A few years back a large tree was logged to replace parts of the roof.

Management
To ensure better supply of timber more eucalypts should be planted on the adjoining land kept for that purpose. In order to expand the forest and also arrest soil erosion, parts of the extensive gully should be restored. This would require fencing to prevent herbivores from entering the site. Although proper restoration techniques would need to be devised, natural regeneration of *Juniperus procera* does occur and thus should be favoured.
An alternative to the wooden fence needs to be considered, otherwise the forest will eventually run out of timber required to regularly maintain it. The use of eucalypt wood may be an alternative to native species.

