

HCV 4 Services to Nature

HCV 4.2 Forests critical to erosion control

Definition

Forest areas that have been legally facetted for soil protection or conservation under federal and state laws e.g. the National Forestry Act 1984 (Peninsular Malaysia), forest areas, situated on slopes over 25 degrees (Sabah), areas classified as Terrain Class 4 in First Schedule: Forest Management Plan, Forest Timber License, and riparian areas covered under the DID (Department of Irrigation and Drainage) guidelines.

Findings

- All areas with slopes $>25^\circ$ and 30 m riparian buffer strips should be categorised as HCV 4.2 for their importance in erosion control.

Management Prescription

- Conduct periodic patrolling and surveillance in designated HCV areas to curb illegal activities such as encroachment and poaching. Any signs of encroachment should be reported and dealt with immediate actions.

Monitoring

- Periodic monitoring and control should be carried out to prevent encroachment in the HCV areas.
- Quarterly progress reports in reporting of the progress of activities as prescribed in the approved Annual Work Plan (AWP), encompassing reporting of monitoring results of known HCV attributes.

Site perspective

In general, past conventional logging activities induced heavy compaction of the soil that result to low water infiltration capacity and increase surface run-off, hence promote soil erosion processes. This compaction also leads to the reduction of vegetation regeneration and establishment that eventually promote lesser forest productivity and diversity. Any area that predominantly having dissected and steep slopes of over 25° is categorized as critical for erosion control. The management also has designated 30 m wide buffer areas on both sides of the permanent waterways to protect the river bank from being eroded.

The rationale for the identification of HCV attribute

Area predominantly having steep slopes of more than 25 in slope angle and 30 m river buffer are categorized as HCV 4.2 (Figure 1).

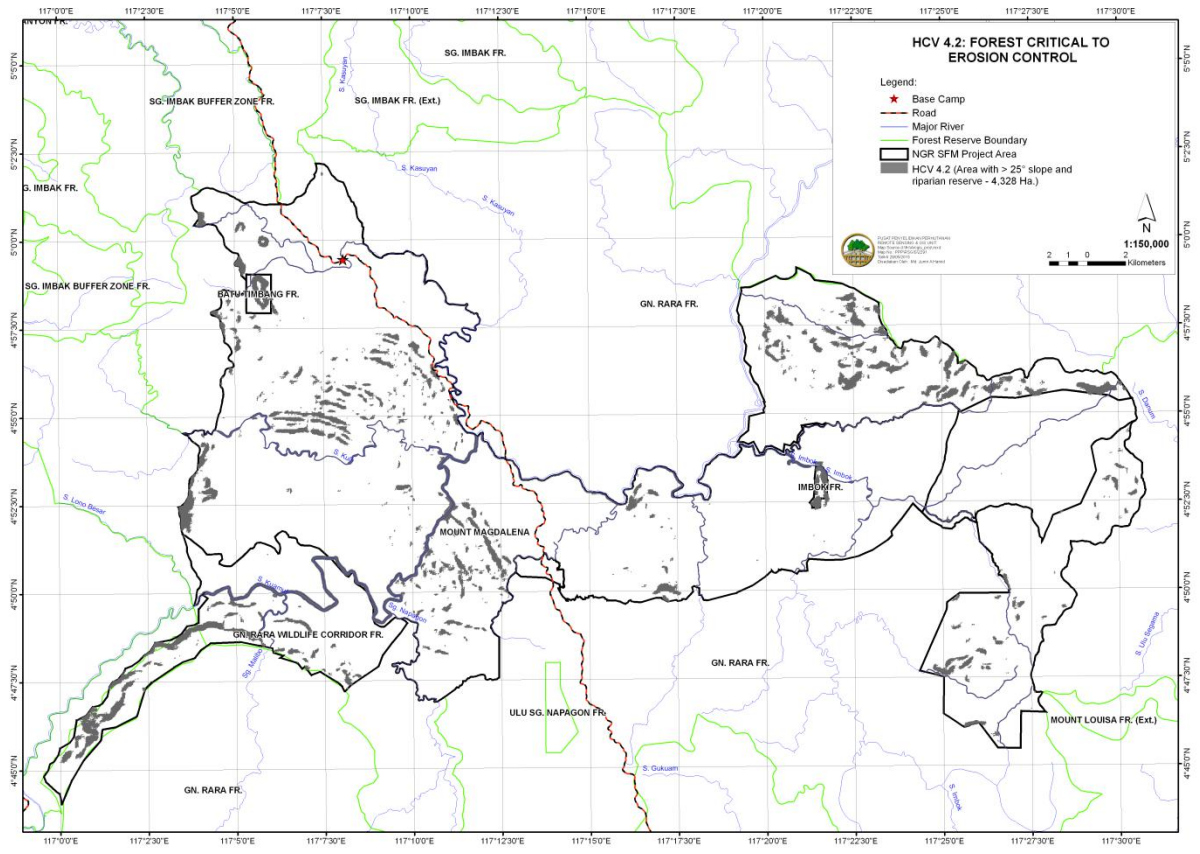


Figure 1. The location of HCV 4.2 denoted in grey shades are critical to erosion control in Northern Gunung Rara Sustainable Forest Management Project Area.

HCV 4.3 Forests providing barriers to destructive fire

Definition

Any specific areas that can act as barriers to provide protection of forests, especially forests with high conservation values, from fire, in areas that are generally fire prone and where the consequences are potentially severe, can be considered HCV 4.3.

Findings

- Forest barrier of 50 m inside the southern boundaries of NGR project area that bordering oil palm estate are categorised as HCV 4.3.

Management Prescription

- Conduct periodic patrolling and surveillance in all designated HCV areas to curb illegal activities such as encroachment and poaching. Any signs of encroachment should be reported and dealt with immediate actions.
- The Forest Fire Management Plan has to be updated periodically.
- Identification of low vegetation structure that is susceptible to catch fire, i.e. grasslands and shrubs along the 50 m band inside the FMU boundaries is crucial.
- Forest restoration of indigenous tree species as part of the remedial action to increase forest structural diversity and mitigate any forest fire incidence spreading into the FMU core area, especially area dominated with lalang grassland and ferns.

Monitoring

- Periodic monitoring and control should be carried out to prevent encroachment in the forest barrier.
- Twice yearly progress reports in reporting of the progress of activities as prescribed in the approved Annual Work Plan (AWP), encompassing reporting of monitoring results of known HCV attributes.
- Ensure that all fire prevention procedures (monitoring, fire drills, public awareness campaign, etc.) to be practiced on a regular basis (at least once a year), especially during the drought season.

Site perspective

Most of southern border of NGR FMU is bordering oil palm estate. Furthermore, secondary vegetation dominates most of the peripheral area of the reserves. It is known that secondary forest is more susceptible to fire in low comparison to pristine forest (Woods, 1989).

The rationale for the identification of HCV attribute

A 50 m band of moderate to high forest structure inside the project area that border local communities land and oil palm estate are categorised as HCV 4.3 (Figure 2).

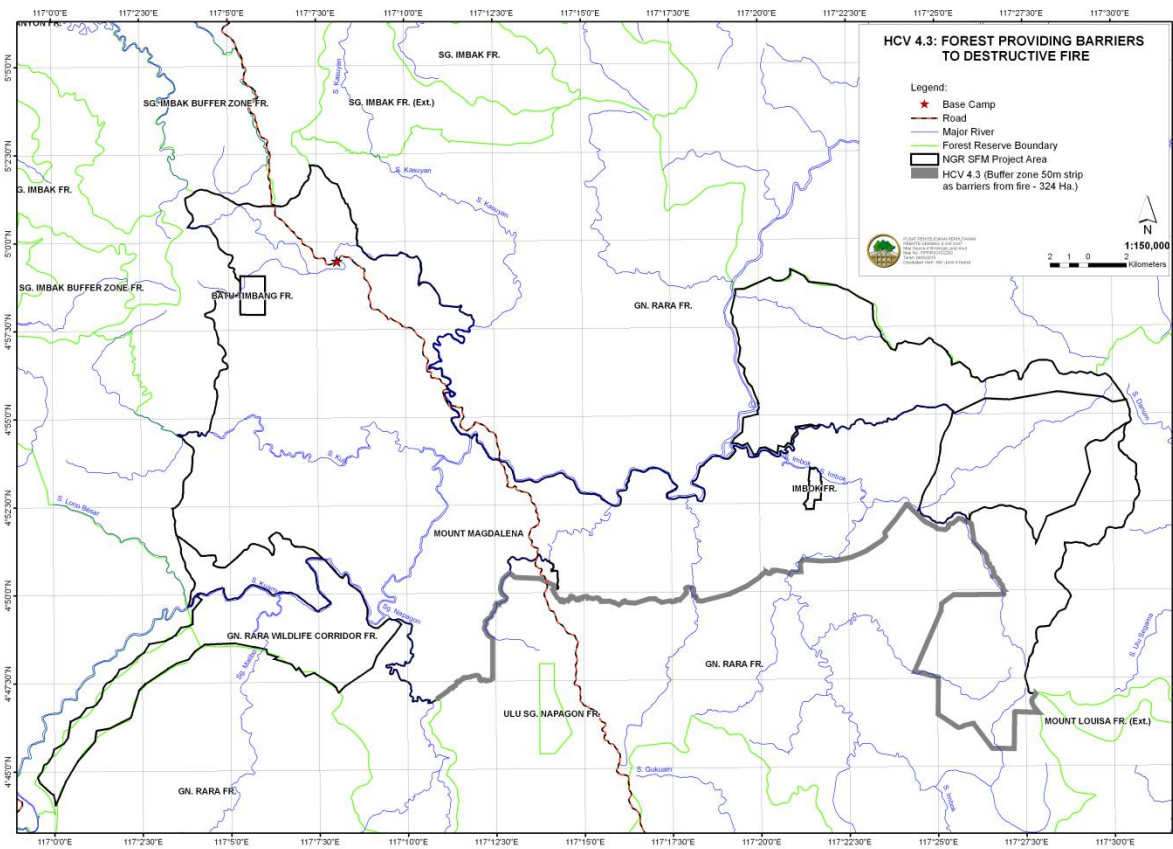


Figure 2. The location of HCV 4.3, 50 m band of moderate to high forest structure inside Northern Gunung Rara Sustainable Forest Management Project boundary providing barriers from fire from adjacent areas.