

## HCV2 Globally, regionally or nationally significant large landscape-level forests

### Definition

Forest area contains or is part of a globally, regionally or nationally significant large landscape level forest where significant populations of most if not all naturally occurring wildlife species exist in natural patterns of distribution and abundance. Any forest area that forms or is part of a linkage between larger forest complexes, and can thus provide connectivity between fragments or act as a wildlife corridor for the movement of animals from one complex to another, is considered HCV 2. This HCVF can serve as a buffer zone to protected areas. Its identification and management should be tailored towards the needs of umbrella species i.e. sensitive, wide ranging wildlife that are particularly susceptible to forest fragmentation and human population pressures.

### Findings

- NGR project area forms a critical link that connects the three larger undisturbed natural forest of protected areas, namely Danum, Imbak Canyon and Maliau Basin forest reserves to support greater landscape connectivity of lowland areas

### 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.
- Establish a long term biodiversity monitoring system for critical forest ecosystem, flora and fauna.
- Migratory pathway of wildlife on logging roads, along streams or wildlife trails in the forest should be marked on the map and kept to ensure wildlife are able to use it for movement within and between forest reserves

### Monitoring

- Periodic monitoring and control should be carried out to prevent encroachment in the FMU.
- 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.
- Periodic monitoring by conducting re-enumeration of all the trees in the permanent sample plots and to be conducted once every three years to get indication of changes in tree structure and species assemblages.
- Periodic monitoring of endangered, endemic and migratory wildlife species will be practised, using Wildlife Management System adopted by the management team. Any changes in terms of population count or migratory pathways observed by either researchers or ground staffs, the management team must be alerted. Similarly, this monitoring prescription

also applies to endangered and endemic plants.

- Long term monitoring of NGR landscape using remote sensing technology and produce forest quality map to be conducted once every three years to detect changes within the reserve and also vicinity areas. If threats are detected, precautionary approach will be taken and potential mitigation measures will be incorporated in the management plan.

### **Site perspective**

Retaining the whole FMU under conservation and natural forest management functional zones is the best effort in maintaining the forest ecosystem function as forest corridor for plant dispersal and wildlife movement. NGR project area forms a critical link that connects the three larger undisturbed natural forest of protected areas, namely Danum, Imbak Canyon and Maliau Basin forest reserves to support greater landscape connectivity of lowland areas. With the application of rigorous forest silvicultural exercise and forest structural diversity restoration activities, it is envisaged that the forest ecosystem function for the physical and biological environment will maintain or perhaps become better over time. Due to high presence of high conservation value flora and fauna in the reserve, it is important to protect and enhance the forest ecosystems in its natural setting.

### **The rationale for the identification of HCV attribute**

The management indicates that Mt. Magdalena, Northern Gunung Rara, Batu Timbang and Sg. Imbok forest reserves are categorised as HCV 2 due to their location to form part of continuous forested landscape to support high conservation value species in Sabah (Figure 1).

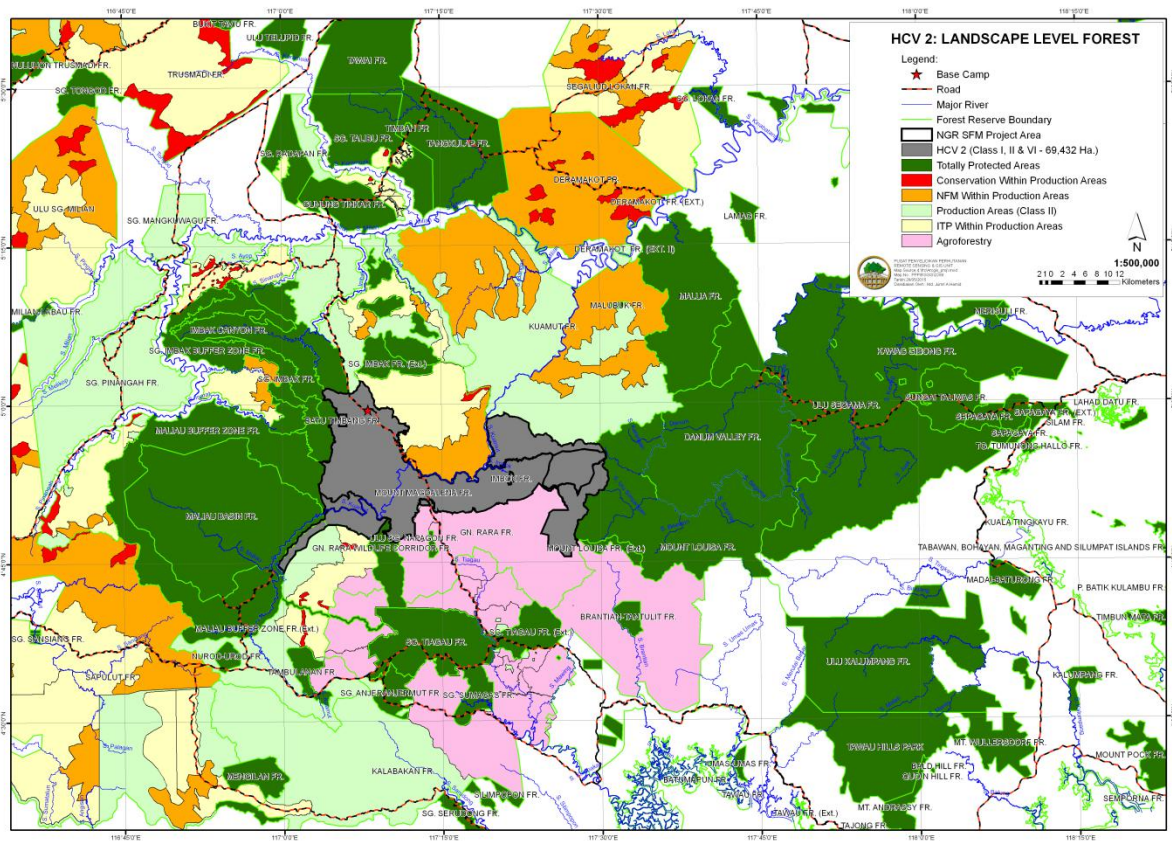


Figure 1. Map showing Mt Magdalena FR (Class I), Northern Gunung Rara FR (Class I), Batu Timbang FR (Class VI) and Imbok FR (Class VI) categorized as HCV 2 for Northern Gunung Rara Sustainable Forest Management Project Area.