Is it Feasible?

REDD/REALU Site-level Feasibility Appraisal (RESFA) in Lamandau wildlife reserve, Indonesia

Janudianto, L Joshi, E Mulyoutami, M Sofiyudin, S Budidarsono, G Galudra, S Dewi, A EKadinata, M Thoha Z, S Rahayu, R Mulia, N Khasanah, and M van Noordwijk

Background

While the international rules and (financial) incentives for REDD+ (reducing emission from deforestation and degradation plus) at a national scale are still being negotiated, a large number of sub-national and site-specific demonstration projects have been designed and many more are planned. The Lamandau River Wildlife Reserve (LRWR or ‘the reserve’) forest conservation and community development project is one of a portfolio of four REDD+ projects being supported by the Clinton Climate Initiative–Forestry program, “Addressing the challenges of scaling-up REDD+ activities in Indonesia”.

REDD/REALU Site-level Feasibility Appraisal (RESFA) were used as the framework for studying the key livelihoods, land-use change, carbon stock and tenure issues to develop prospective scenarios and impact predictions for the eastern buffer area of the reserve (23,600 ha).

Methods applied in this study

A. Participatory Analysis of Poverty, Livelihoods and Environment Dynamics (IMPOLDO) explore current land-use options within a livelihood perspective
B. Rapid Land Tenure Assessment (RaTA) analyzes tenure claims and policies that gave rise to them and subsequent conflicts
C. Rapid Carbon Stock Appraisal (RaCSA) provides protocols for carbon stock assessment
D. Analysis of land use/land cover trajectories (AllUCT)
E. Scenario models using the Forest, Agroforest, Low-value Landscape or Wasteland (FALLOW) model

Site information

Lamandau River Wildlife Reserve is located in two districts of Central Kalimantan province: Sukamara and Kotawaringin Barat. It was created by Ministry of Forestry Decree No. 162/1998 of 26 February 1996. Lamandau is of considerable conservation significance, especially for the endangered orangutan (Pongo pygmaeus) and habitat for other species of endangered fauna such as bekantan (Nasalis larvatus), honey bear (Helarctos malayanus) and flora as ramin (Gonystylus bancanus) and sibin (Eustemonoloeviv oxygoer). Many of these species are nearly extinct following the forest logging of the 1980s–1990s.

A. Socio-economics

- Jelutung (Dyera costulata) latex is the raw material of gum, electric cable, and the timber is used for blackboards, art carving, framing, and packing cases.
- Jelutung tappers are dominant activities inside the buffer area. Majority are the landless from other sub-districts.
- Low interest in farming; while fishing and extracting submerged logs remain a livelihood option.

B. Tenure assessment

- Different status of area given by local government and forestry department, but both are legal for plantation concession or crop estates. Community control may improve land security.
- Community Forestry’s arrangement might offer better tenure security as many communities outside the villages also use the area.

C. Carbon stock assessment

- The area is dominated by peat of up to 4.3 m depth (average 1.3 m) and contain 841 t/ha of carbon.
- Aboveground carbon stock average in logged-over forests is about 50 t/ha.
- The current protection of the reserve and buffer area (existing guard posts), are useful in reducing further degradation of forest resources and the carbon stock is increasing by 1.3 t/ha of carbon per year.

D. Consequences of land use change for C emission

- The land use – land use change data indicate no significant change in landcover types, and recovery in logged-over forests is gradually taking place.
- In the 1990 to 2000, 30% (3.5%) of the area was degraded into logged over swamp forest and shrub. It is appeared to be the highest source of emission (3.04 Mg CO2 eq ha–1 yr–1) and 1.90 Mg CO2 eq yr–1.
- From 2000 to 2005 forest conversion was a rate of 2%/yr. By 2005 16% of the area remained as intact forest and 67% as logged over forest, with the remainder in more open vegetation types.

Conclusion

Credible and potentially creditable emission reduction through a REDD+ pilot project will be feasible if the project includes activities to strictly control logging, land clearing and burning inside protected areas, in combination with enhancement of jelutung (for controlled tapping) and other valuable trees in and outside the forests and allowing local community to continue fishing and extracting submerged logs.

Community control will secure the tenure status and reduce threat of conversion to plantation. This will increase the likelihood of success for any project for reducing carbon emissions while protecting local livelihoods of the forest-dependent community.

References

More Info: Janudianto (janudianto@cgiar.org)
World Agroforestry Centre
Southeast Asia Regional Office