

HCSA Peer Review Report

Musim Mas – PT. Mentari Pratama (PT. MP)

Background information:

- a) Did a Registered Practitioner Organisation lead the HCS assessment? If not, has the organisation which led the assessment started the process of registration?
Yes, Remark Asia is a Registered Practitioner Organisation.
- b) Was the HCS Team Leader a Registered Practitioner?
Yes, Cecep Saepulloh is the HCS Team Leader and a Registered Practitioner.
- c) Were at least 2 HCS team members Registered Practitioners?
Yes, both Cecep Saepulloh and Adi Wijoyo are Registered Practitioners.
- d) Was the HCV assessment judged 'satisfactory' (highest rating) by the HCV Resource Network (HCVRN) Assessor Licensing Scheme (ALS)?
(See <https://www.hcvnetwork.org/als/public-summaries>).
No. HCV was completed in 2011, prior to the establishment of ALS.

Questions for peer reviewers

Peer Review Panel: Kim Carlson (Lead, IA, FI, LUP/DT) and Cynthia Chin (Social, HCV)

1. Peer Review Summary

1.1. What are the major findings and recommendations from the peer review?

Finding:

The reviewers found that the overall quality of the HCS Assessment was high.

Regarding both social issues and ecological and conservation values, the major issue is that the HCV assessment was conducted in 2010. While the original assessment was relatively high quality for that era, it is outdated. Consultation, engagement and the use of FPIC processes were clearly stated, and participatory mapping was clearly conducted.

Considering image analysis, the analysis seems to accurately identify major land covers in the region.

The forest inventory was well described and solid, and the forestry team was well qualified. The allometric equation used was appropriate for the analysis. However, the distribution of sample points across the landscape was clustered, which may introduce some bias into results.

The decision tree for the most part correctly applied, but there was no justification for “indicative develop” of three low priority patches.

The land use planning process was well described and relatively complete. However, the field verification occurred before the satellite image used to map land cover was collected, suggesting that field verification has in fact not occurred.

Reviewers Recommendation:

1. **Outdated HCV Assessment.** Please include a statement to indicate that constant engagement with the local communities have been done as well as monitoring to keep the HCV assessment relevant. Include a statement of adaptive management based on monitoring results or observed changes in social issues.
2. Justify the indicative develop choice for low priority patches.
3. Clarify the field verification timeline.

Company Response:

1. The statement about the constant engagement with the local communities as well as the monitoring of the HCV areas has been discussed on the summary report (please refer to Page 11 of the summary report). The example of management and monitoring plan that has been submitted to HCS SharePoint also shows that there are regular socialization and consultation with every stakeholder. On the socialization and stakeholder consultation, PT MP collects feedback from the stakeholder for the evaluation of the implemented management and monitoring programs.
2. There are three patches were marked as low priority. Two of these patches fell fully outside the concession boundary, and the third fell partly outside the concession boundary. These were categorized as “indicative develop”. This is because the plantation falls in a medium forest cover landscape 30-80% (please refer to page 2 of the summary report).
3. The field verification is done on May 2017 (please refer to page 74 of the summary report) and the satellite image used to map land cover was dated 3 August 2016 and 7 April 2016 (please refer to page 5 of the summary report).

1.2. Did the HCS assessment team include or have adequate access to relevant expertise to undertake the HCS assessment?

Finding:

Based on the peer review results, the assessment team had sufficient expertise in HCV and FPIC processes, as well as field work and quantitative methods to assess vegetation and carbon stocks.

Reviewers Recommendation:

None.

- 1.3. What elements of the HCS Approach still need to be completed in order to create a final land use and conservation plan? Are there aspects which you feel need to be re-done?

Finding:

The report outlines further steps that need to be completed to create a final land use and conservation plan. These include verification and consultation with communities, signing these areas, and routine patrols to monitor these areas.

Reviewers Recommendation:

None.

2. *Social Issues*

- 2.1. Does the summary provided in Section 3.1 adequately represent and explain the community engagement, FPIC processes, and participatory mapping activities carried out?

Finding:

This section is well written, with clear iterations of the processes of community engagement in the 12 villages found in the concession area. The use of Free, Prior and Informed Consent (FPIC) principles were clearly laid out. Community profiling was clearly explained. The Social Impact Assessment was conducted on 18th March 2016. The process was participative and included participatory mapping, full engagement and seeking of consent where development is concerned. Evidence of socialisation was provided in the appendices. The HCV assessment was conducted in 2010 (report completed in 2011). Focus discussions were used to identify the values (this was also used during the SIA). Both desktop and field work were adequately described. HCVs 5 and 6 were identified as present, with a map that identified their distribution using coordinates collected on the ground.

Reviewers Recommendation:

The HCV assessment was well done but dated (2010). The company needs to consider an update to determine if the data from 2010 are still relevant to the current social context. Even though a lot of work has gone into consultation and preparation to ensure that the 2010 assessment is still relevant, the reviewer recommends that an update of the assessment report be done to reflect this effort, or at the very least, the intent to do so be mentioned.

Company Response:

Please refer to section 1.1.

2.2. Has a tenure study been completed and has it been vetted by independent social experts?

Finding:

Findings on land ownership and activities were conducted and indications on potential impacts were also clearly stated. Dialogues, focus groups and in-depth interviews, social triangulation approaches and adaptation methods were used. The report to this effect is deemed satisfactory even though there is no mention of whether this part of the social component was vetted by independent social experts.

Reviewers Recommendation:

None.

2.3. Is there a participatory land use map and does it contain the key components of community land use including the minimum requirement of 0.5 ha per person for future garden areas?

Finding:

Participatory mapping was clearly conducted, and a map was developed from the information derived from the process (Figure 5). Although there was no specific mention of the minimum requirement, land division and ownership were shown in Table 2. It was also reported that 441 individuals who work the land area, owning 2-10 ha of land for rubber and fruit trees.

Reviewers Recommendation:

None.

- 2.4. Is there a record of consultation with affected communities and FPIC processes on the proposed development, the HCS Approach and issues/concerns they raised? Did the community nominate their own representatives?

Finding:

Consultation, engagement and the use of FPIC processes were clearly stated. Social conditions and potential issues were given ample consideration. Consent was sought, opinions and views were considered, and the report gives satisfactory implication that the community representatives were not coerced and were from the communities' choosing.

Reviewers Recommendation:

None.

- 2.5. Were their views addressed and reflected in the plans and implementation of the plantation? Is there specific reference to the customary owners being made aware that they can say no to the development and they have the right to independent legal representation with regard to their agreements before they sign (to meet the 'prior informed' test)?

Finding:

The SIA, HCV and background documentation indicate that views of the affected communities were given due consideration. The recommendations on page 18 of the Summary Report clearly put the wellbeing and consideration of the affected communities first and clearly reflect that the views of the communities were considered in developing these recommendations. There is good implication that consent was sought, indirectly pointing to a choice the communities could make.

Reviewers Recommendation:

None.

2.6. What recommendations do you have for any improvements regarding community consultation and negotiation of Free, Prior and Informed Consent?

Finding:

The FPIC process was clearly at the forefront of the approach when engaging with the affected communities. It appears that the presence of conflict was minimal. The views of the communities were considered and needs, threats as well as opportunities were analysed in relation to recommendations.

Reviewers Recommendation:

None.

3. *Ecological and Conservation Values*

3.1. Does the summary provided in Section 4.1 of the Summary Report adequately represent the findings of the HCV study?

Finding:

The report gives a good overview of the HCV values, citing 5 values identified (HCVs 1, 3, 4, 5 and 6) and emphasizing the importance of HCVs 5 and 6 as well as important species identified. A total of 4,642.25 ha were identified as HCVs. This makes up around 26% of the total area of interest. The details of each HCV area are listed in Table 4 and mapped out in Figure 6.

Reviewers Recommendation:

The HCV assessment was conducted in 2010. Although the methods and approaches were sound, please mention any intended update or re-surveys to ensure any needed management adaptations are considered. Even though a lot of work has gone into consultation and preparation to ensure that the 2010 assessment is still relevant, the reviewer recommends that an update of the assessment report be done to reflect this effort, or at the very least, the intent to do so be mentioned.

Company Response:

Please refer to section 1.1.

- 3.2. If the HCV assessment was not judged satisfactory (highest rating) by the ALS scheme of the HCVRN (as noted in the introductory information from the HCS Secretariat – please see page one of this document), please do a cursory review of the HCV report as it relates to HCVs 1-4. Do you have any general comments on the quality of the site description, the analysis of the landscape and national or regional context, or the methods used to undertake the HCV study? Were the determinations of the absence/presence and extent of HCVs 1-4 well-justified? Are the HCV management and monitoring maps accurate?

Finding:

The HCV assessment was done before the establishing of the ALS. Nevertheless, the assessment report contains sound methods, using Proforest’s 2008 “Assessment, Management and Monitoring of High Conservation Value Forest (HCVF): A Practical Guide for Forest Managers”, among other well-tested guidance and publications. Assessment of the presence of HCVs were logical and based on both desktop and field approaches. HCV areas were delineated and mapped. Recommendations for management were in line with the threats assessed, and overall, appears to be in order.

Reviewers Recommendation:

An update of the HCV report, incorporating the outcomes of the current engagement and monitoring, is recommended.

Company Response:

Please refer to section 1.1.

- 3.3. Please review Section 9.2 of the Summary Report. Was the methodology used for the Pre-RBA and the Rapid Biodiversity Assessments (if any) satisfactory? Did the RBA(s) reveal any significant biodiversity values that should have been captured in either the HCV assessment but were not, or warrant protection?

Finding:

Patch analysis showed that the medium and low priority patches were already part of the HCV areas identified. Thus it was concluded that RBAs were not necessary.

Reviewers Recommendation:

None.

- 3.4. Are the forest conservation management and monitoring activities outlined in Section 10.3 adequate? Do they take into account forests and protected areas outside the concession?

Finding:

Besides demarcation of these areas as well as socialising their presence to all stakeholders involved (i.e. management, staff, communities, etc.), these areas have also been taken out from future development. HCV areas identified have also been excluded from future development and clearing.

Reviewers Recommendation:

None.

4. *Image Analysis*

4.1. Please review Section 6.1 of the Summary Report. Was the Area of Interest correctly identified?

Finding:

Yes, the Area of Interest was correctly identified. It is the oil palm concession (the development area) plus a 1 km buffer (the broader landscape adjacent to the development area). This area was chosen because it incorporates any forested areas that may be outside of the concession boundary that are important for patch and connectivity analysis

Reviewers Recommendation:

None.

4.2. Please review Section 6.2 of the Summary Report. Were the images used of adequate quality, including resolution and date?

Finding:

Yes, the images used were of adequate quality, including resolution and date. The analysis used Landsat 8 images collected in August 2017 and was supported by Sentinel-2 imagery collected in April 2016. The Landsat data have 30 m resolution, which is sufficient resolution for analysis using HCS Toolkit Version 1.0. The image has 2.5% cloud cover and 6.8% haze cover, indicating sufficiently high image quality.

Reviewers Recommendation:

None.

- 4.3. Please do a quality check using the images provided in 6.3. Was the initial vegetation classification done properly? Do the land cover areas in the tables in Section 6 look reasonable? Are there any obvious errors in classification?

Finding:

Yes, the initial classification was done properly to align with Toolkit v1.0. The satellite data were radiometrically corrected and pan-sharpened before classification. The supervised classification used Landsat 8 bands 4-6, although it probably would have been better to include more bands for more accurate classification. After the initial classification (Figure 9), the map was manually corrected based on field knowledge (Figure 15).

The land cover areas in the tables in Section 6 look reasonable. If anything, the classification seems to over-identify forested areas. It has an accuracy of 76%. There was some confusion between “lahan budidaya” (community land) and other classes, likely because this community land class encompasses several land covers including community oil palm areas and mining areas. There are no obvious errors in classification.

Reviewers Recommendation:

None.

5. *Forest Inventory*

- 5.1. Please review Sections 7.1 and 7.2 of the Summary Report. Were the sample plots selected, set up, and measured properly? Please check the inventory plot layout for adequacy.

Finding:

Sample plots were for the most part selected, set up, and measured properly.

The number of plots chosen used the [Winrock Calculator](#), which suggested that 183 sample plots were needed. However, the team inventoried only 107 plots due to steep slopes in forested areas. The team under-sampled most classes, but oversampled HRM (18 plots), the class most likely to be confused with non-HCS land cover (compared to a planned 14 plots). Therefore, I think the sampling effort was sufficient if not ideal.

The team sampled using rectangular plots along transects. The area of the large diameter plot was 0.05 ha, and the area of the small plot was 0.01 ha (centred in the larger plot). The sample area is sufficiently large. However, circular plots would have been preferred to avoid errors due to slope etc, as recommended in the Toolkit.

The location of plots was not provided as a shapefile but eyeballing the locations on the report and seeing the number of samples in each class suggests that the team sampled in areas that were easier to access (e.g., along roads). This may have led to some bias in their carbon results, even though they were sampling across all land cover classes, due to edge effects.

Reviewers Recommendation:

None.

5.2. Please review Section 7.3 of the Summary Report. Was the forest inventory team qualified?

Finding:

Yes, the team seems qualified especially given that they were focused on HCS alone (with the HCV assessments already completed several years ago). The team includes an expert in GIS/remote sensing, one with experience in forest inventory and allometric equations, and two individuals focused on biodiversity. All have degrees in relevant fields (e.g., forest management, conservation). In addition, two PT MP and 2-4 village representatives joined the survey. It is not clear that the team is highly qualified to identify tree species in Kalimantan, given that the two biodiversity experts are relatively new graduates (2017).

Reviewers Recommendation:

None.

5.3. Please review Section 7.4 of the Summary Report. Was the allometric chosen adequate?

Finding:

The allometric equation chosen was from Ketterings et al. 2001, which was developed in Sumatran mixed secondary forests. The report chose to use the values of r and c for the mineral soil site in Sepunggur, Jambi instead of re-estimating these values for the site in West Kalimantan. The equation is, in my estimation, adequate.

Reviewers Recommendation:

None.

- 5.4. Please review Sections 7.5, 7.6, 7.7 and 7.8 of the Summary Report, and do a cursory review of the forestry data and statistical analysis. Are there any obvious errors in the raw forestry data? Are there any flags where a result does not seem consistent with your rough interpretation of the land cover image? Do the final carbon classes seem accurate given what is known about other forests in the region?

Finding:

There are no obvious errors in raw forestry data, and results seem consistent with a rough interpretation of the land cover image. The carbon values seem reasonable for the region, soils, and land cover classes studied, and they fall within previous reported ranges for HCS classes. A single wood density value (ρ) was used because all tree species were not recorded, which likely reduces biomass accuracy. The land cover class carbon values have non-overlapping confidence intervals, although ANOVA suggests that within the HCS classes, there are some non-significant differences between classes. There was no “stand and stock” table provided in the summary report.

Reviewers Recommendation:

None.

6. *Land use planning*

6.1. Please review Section 8.1 of the Summary Report. Was the initial vegetation classification map adequately calibrated and adjusted to take into account forest inventory results?

Finding:

Yes, the initial vegetation map was adequately calibrated and adjusted to consider forest inventory results. Specifically, the initial vegetation classification map was corrected to consider areas of mature rubber, which in the initial classification were labelled as HCS classes. In addition, a large patch to the west was re-classified from Forest to YRF.

Reviewers Recommendation:

None.

6.2. Please review Section 9 of the Summary Report. Was participatory mapping data used in step one to identify community lands that should be enclaved? Were patches merged correctly? Was the core area correctly identified? Was the connectivity analysis done correctly?

Finding:

Yes, step 1 did identify and excise community lands that should be enclaved. Patches were merged correctly, core area as correctly identified, and connectivity analysis was done correctly.

Reviewers Recommendation:

None.

- 6.3. Please review Section 9 of the Summary Report, and select a few sample patches to test that the Decision Tree was used correctly. Were the patches correctly identified as High, Medium, or Low Priority? Was the Patch Analysis done according to the HCS Approach Decision Tree?

Finding:

Priority ranking and patch analysis was, for the most part, done correctly according to the decision tree. Three patches were marked as low priority. Two of these patches fell fully outside the concession boundary, and the third fell partly outside the concession boundary. These were categorized as “indicative develop”, but no explanation was given for this choice. This could happen if: 1) the plantation falls in a medium forest cover landscape 30-80% or 2) the area is found not significant for biodiversity after an RBA.

Reviewers Recommendation:

Justify the choice to classify these patches as “Indicative develop”.

Company Response:

Please refer to section 1.1.

- 6.4. Please review Sections 10.1 and 10.2 of the Summary Report. Were the final integrated conservation and land use planning steps completed to maximize the ecological and social viability of the conservation areas (HCV, HCS, peatland, riparian zones, customary forest, etc)? Were the results of the final ground verification (if any) adequately incorporated into the land use plan and final HCS map?

Finding:

Yes, the final integrated conservation and land use planning steps were completed. The integrated conservation and land use planning steps include demarcation of borders of HCS areas, socialization and working together with communities to protect these areas, and routine ground patrols to monitor these areas. If undertaken, these steps should be sufficient to fulfil HCS requirements for a land use and conservation plan.

The report states that the final HCS maps were verified on the ground in May 2017. However, this date occurred before the date of the satellite image (August 2017) apparently used for the land cover classification, so I don't see how the results could have been verified if the land cover maps had not yet been completed.

Reviewers Recommendation:

Please comment on how the date of the final field verification occurred before the satellite data used to do the land use classification were available.

Company Response:

Please refer to section 1.1.