

HIGH CARBON STOCK APPROACH

HCSA PEER REVIEW REPORT

Company Name: SIPEF

HCS Assessment Area: PT Agro Muara Rupit Phase III & IV (5,503.3 ha)

29 March 2021

Dear peer reviewers:

Thank you for agreeing to review this HCS study. As you know, we are asking you to do a desk review of the material provided and to highlight any concerns you have about the land cover classification, land-use planning, or consultation processes. We have invited you as an expert in your field, and hope that you will bring your own experience and knowledge to this review to help the company improve its study. We are not asking you to provide a pass/fail decision, just to give your honest opinion and suggestions for changes to the company's plans or activities to ensure that the HCS Approach methodology is implemented correctly. Please refer to the latest [HCSA Toolkit](#) as reference.

Some of the issues raised in the review may be complicated and long-standing, especially those related to land tenure and historical conflict with communities. It is not within the scope of the review for you to do hours of research and determine who is at fault, or to examine stakeholder activities outside of the particular concession or plantation which is the subject of the review. Rather we ask that you call attention to topics that need further research or more information from the company, to improve community relations in the future or to reassure external stakeholders that the intent of the HCS Approach is being followed.

Background information to be provided by the HCSA Secretariat:

- 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, Ryan Karida from Aksenta led the assessment.

- b) Was the HCS Team Leader a Registered Practitioner?**

Yes.

- c) Were at least two (2) HCS team members Registered Practitioners?**

Yes. Ryan Karida and Riswan Zein are Registered Practitioners.

- d) Was the HCV assessment judged 'satisfactory' (highest rating) by the HCV Resource Network (HCVRN) Assessor Licensing Scheme (ALS)? (See <https://hcvnetwork.org/reports/find-a-report/>).**

In progress of review.

Questions for peer reviewers

(Peer Review Panel: Neville Kemp)

The estimated time to complete each section is noted in parentheses.

1. Peer Review Summary (2 hours, Lead Reviewer)

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

Please refer to the peer review results in this report.

Finding: The report is solid and well-written. The links with information contained within the HCV and other reports are consistent and provides the reader with good insights of environmental and social conditions in the field. All minor corrections have been addressed and conservation areas proposed consider existing HCS forest as well as practicalities of conservation and oil palm development.

Reviewers Recommendation: No further recommendations

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

Please refer to Section 2 of the Summary Report.

Finding: Yes

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?

Please review Section 10 of the Summary Report and the peer review results in this report.

Finding: All aspects of the assessment have been carried out to a high standard.

Reviewers Recommendation: None

2. Social Issues (4 hours)

Please review Section 3 and Section 4 of the Summary Report and please also look at the full HCV report (Section 4) for how HCVs 5 and 6 were assessed. The HCSA Toolkit provides more information on the expected quality of community consultation and FPIC procedures.

2.1. Does the summary provided in Section 3 adequately represent and explain the community engagement, FPIC processes, and participatory mapping activities carried out?

Finding: Yes. The report describes the community engagement process that the company has carried out to date including, HCV assessments, SIA assessment, and EIA. The report also details stakeholder consultation by the HCS team and discussions held (in appendices) as well as the participatory mapping process and discussions. FPIC for developing the plantation is being sought through negotiations with individual landowners and FPIC for the assessment of HCS with the concession boundaries was sought by the company / assessment team before proceeding.

Reviewers Recommendation: None

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

Finding: The tenure study is ongoing as this is relatively new concession license and at present 17% of the area has been mapped with land owners through the GRTT process. GRTT mapping is described as being “carried out by measuring the area of land in the field, accompanied by land owners, village teams [officials], the company team, and land owners around the land that can provide clarification on land boundaries. In this instance, independent stakeholders were involved in this process, and can be considered experts on the local social conditions.

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: The report contains a participatory map and details the process used to verify existence of any communal land, important lands from the community etc. Information ~~included in maps~~ is still difficult to read but closer inspection of the maps shows some small areas of importance to communities inside the concession that the company will be dealt with through a clear FPIC process (where communities have the opportunity to refuse negotiations, as well as having a better understanding of food security issues when this is taken into account during the land selling process).

Similar to adjacent PT AMR I&II, the report explains that agroforestry (mixed agriculture) and rubber is the main livelihoods and that a mixture of work (plantation worker, plasma owners, rubber tapping and agroforestry products) support livelihoods. Subsistence farming where families feed themselves from the land is described as longer a main livelihood and communities supplement livelihoods with rubber-tapping. No large-scale areas of agriculture for food production were identified from satellite images.

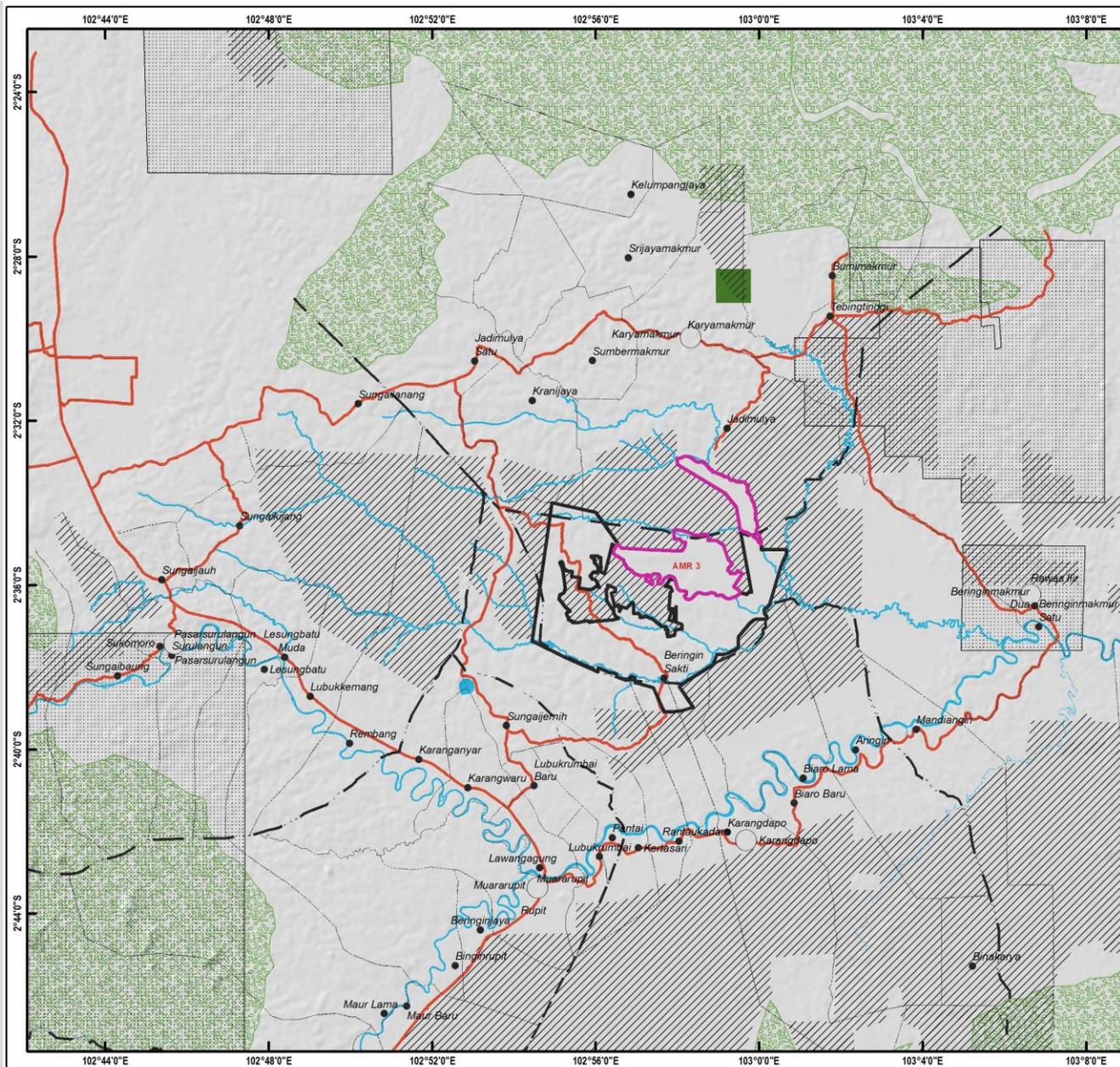
Beringin Sakti village (which is almost entirely occupied by AMR III & IV as well as another company (PT SAM), the assessment has not applied a strict 0.5 ha per person but instead considered community development plans for rice fields in their proposed ICLUP. It acknowledged that the 0.5ha threshold is a rather blunt tool and is not tenure sensitive. The company has provided additional information regarding the development of rice fields in Beringin Sakti village especially that considers potential future scenarios for local community food and livelihood security as well as respecting individual landowners not selling their land for development.

Reviewers Recommendation: No further recommendations of clarifications required.

- 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?

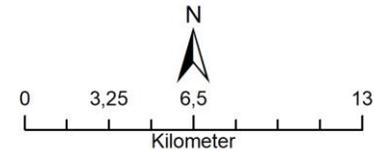
Finding: The FPIC process for development (including AMDAL, SIA and HCV) as well as HCSA assessment itself was well documented. All stakeholders reported that land is individually owned, and the owners represented themselves for compensation agreements (but with others in attendance when land mapping was carried out).

There was mentioned of potential *Suku Anak Dalam* traditional lands being present in the AMR landscape and acknowledged by the Indonesia Government.



PETA KEGIATAN LAIN DISEKITAR PT AGRO MUARA RUPIT FASE III & IV

Kec. Rawas Ilir, Kec. Nibung, Kec. Karang Dapo
Kabupaten Musi Rawas Utara
Provinsi Sumatera Selatan



Proyeksi : Transverse Mercator
Sistem Grid : Geographic Grid - UTM Zona 48S
Datum Horizontal: WGS84 - Zona 48S

Legenda:

- | | |
|---------------------------|------------------------------------|
| ○ Ibukota | ▨ ljin Perkebunan Sekitar |
| ● Ibukota Desa | ■ Area Klaim untuk Suku Anak Dalam |
| --- Batas Kecamatan | ▨ IUP Pertambangan |
| --- Batas Desa | ▨ Areal IUPHHK HTI |
| — Jalan | |
| ~ Sungai | |
| ▭ Batas Izin Lokasi AMR 3 | |
| ▭ Batas Izin Lokasi AMR 4 | |

- Sumber Data:
- Data Spasial PT AMR
 - Peta Rupa Bumi Indonesia (RBI) Skala:1:50.000
 - Peta Potensi Desa (BPS,2014)
 - SRTM DEM 30m (<https://earthexplorer.usgs.gov>)
 - Batas IUPHHK (Dinas Kehutanan SUMSEL)
 - Batas IU Pertambangan (BAPPEDA SUMSEL)
 - Batas Perkebunan (Global Forest Watch)
 - Hasil Pemetaan Partisipatif (KEI, 2020)



Versi Final

Dibuat Oleh: Tim GIS
Tanggal : 25 Agustus 2020



The map clearly shows that the area claimed is far from the AMR concession as stated in the appendices.

Some individuals requested more frequent information / updates regarding the GRTT process. One village (Karang Dapo I) has an outstanding issue with the previous company overtaking by AMR / SIPEF but did not have concerns regarding the HCSA assessment. As stated above the GRTT is still on going and individuals have the right to accept or decline compensation by the company with development not proceeding until an agreement has been reached by both parties. As with other reports it was uncertain if communities nominated their own representatives, were free to do so and content with the FPIC process. 'Village teams' were present but uncertain how these teams supported landowners.

Reviewers Recommendation:

The company has an authorization procedure for FPIC and land acquisition that makes certain of the land ownership status and involves stakeholders in the GRTT process ensure individual land ownership. Adjacent landowners, village and district administrators witness the process. Not explicitly state whether they were asked to represent landowners during GRTT (unlikely in case of individual land ownership although process seems open and transparent with multiple stakeholders involved).

No further clarifications required.

- 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: Land development is contingent on individual GRTT agreements. The land compensation is still in an early stage. Land owners have the right to say no to development and therefore the proposed ICLUP presented does not represent the actual final development areas (only potential areas that could be developed if land owners agree) and therefore may be smaller than the total proposed area. Multi-stakeholders involved during GRTT process to ensure correct owners was compensated for to avoid land conflicts and can potentially assist individual owners through the process if required and ensure their rights were upheld.

Some communities consulted were concerned that their lands labelled as HCS would not be accepted for development and compensated by the company. and this needs to be clarified by AMR. The company's position for ensuring conservation of HCS lands whereby GRTT is paid thus preventing these forests from conversion to future agriculture is still not described explicitly, however, the ICLUP for potential conservation areas has been presented and the company will have to ensure that these are indeed conserved (which may require some arrangements with the individual owners).

Reviewers Recommendation: No further recommendations

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

Finding: FPIC process is suitable.

Reviewers Recommendation: None

3. Ecological and Conservation Values (4 hours)

3.1. Does the summary provided in Section 5 of the Summary Report adequately represent the findings of the HCV study?

Finding: Yes.

Reviewers Recommendation: None

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 HCSA 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?

The HCV Report can be found in the SharePoint.

Finding: The HCV report is under review. The description of the AOI are similar between HCV and HCS reports. Mapping of land cover is reasonably accurate and largely in-line with that of the HCS assessment. Methods used are good and determination of the presence or absence of HCV very adequate. These identifications are solid and can be used within the Patch analysis to produce a draft ICLUP.

Reviewers Recommendation: None

- 3.3. Please review Section 8.2 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?

Note that this is a check of procedures, not outcomes. The HCSA Toolkit provides more information on the expected quality of the RBA and the Pre-RBA.

Finding: No RBA was carried out as all LPP were correctly connected to HCV areas.

Reviewers Recommendation: None

- 3.4. Are the forest conservation management and monitoring activities outlined in Section 9.1 adequate? Do they take into account forests and protected areas outside the concession?

Finding: Management and Monitoring recommendations are adequate and will be strengthened by harmonizing conservation management between phase I & II and PT SAM.

Reviewers Recommendation: No further recommendations. Recommendations for management and monitoring made in collaboration with adjacent companies has been included.

4. [Image Analysis](#) (6 hours, including land use planning/Decision Tree Section 6 below)

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

The HCSA Toolkit explains how the AOI should be identified.

Finding: A simplified 1 km buffer was applied with a further 5 km considered during PA. For a fragmented landscape such as AMR, this is appropriate. The Aol was a low-forested landscape.

Reviewers Recommendation: No further clarifications needed.

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

The HCSA Toolkit describes the expected quality of the images.

Finding: Yes. Original land cover was carried out using images from 7 November 2019 and updated using 23 August 2020 to bring in-line with an image within 6 months of final assessment dates. The initial image had no cloud cover over the Aol and the later image had slight cloud shadow but did not inhibit accurate determination of land cover. The image provided was at 20m resolution with bands 11 (short-wave Infrared), 8 (Near Infrared) and 4 (red) to generate vegetation index useful for differentiating vegetation types. 10m resolution is available for 2 bands of the bands for higher resolution mapping.

Reviewers Recommendation: 10m RGB and 20m False color very adequate for mapping in this landscape.

4.3. Please do a quality check using the images provided in 6.2. 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?

The HCSA Toolkit provides more information regarding the expected quality of the image analysis.

Finding: Yes. For highly fragmented landscapes that are dominated by mature agroforestry and rubber, the initial pre-field assessment vegetation map was accurate.

Reviewers Recommendation: None

5. Forest Inventory (4 hours)

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.

The HCSA Toolkit describes the expected quality of the forest inventory process.

Finding: Yes. The assessor sampled more than the estimated number required at estimated means and variance (Note that the scrub only needed 28 samples yet 88 were sampled). The number of forest inventory plots was therefore more than adequate. Also, the team carried out a large number of ground-truthing points to verify the initial vegetation classification map.

Reviewers Recommendation: None

5.2. Please review Section 2.1 of the Summary Report. Was the forest inventory team qualified?

The HCSA Toolkit describes the expected qualifications of the forestry team.

Finding: Yes, a resume of the team's qualifications and experience is given in the appendices.

Reviewers Recommendation: None

5.3. Please review Section 7.6 of the Summary Report. Was the allometric chosen adequate?

The HCSA Toolkit provides more guidance on choosing an allometric equation.

Finding: Yes, the allometric equation was appropriate for the region and size of tree encountered in the AoI

Reviewers Recommendation: None

5.4. Please review Sections 7.3, 7.4, 7.5, and 7.7, 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?

The HCSA Toolkit provides more guidance on what statistical analysis should be used.

Finding: All sample plots were reworked and gave similar estimation of carbon stock. No errors were found. As the plots were reclassified into scrub, YRF and HK there was an obvious statistical difference between strata.-Reviewer has produced same results for statistical analysis.

HCSA need to evaluate the use of this statistic test as it is not fit for purpose if strata are reclassified. Results of field sampling and then reclassification will always show statistical difference when samples are matched to carbon stock strata limits. The important point is that the results of field sampling were used to calibrate the initial land vegetation classification map to become an accurate final vegetation map. This as was done in this case.

Reviewers Recommendation: Concur with the company. Results for statistical test Scheffe Comparison Test were true and gave same results.

6. Land use planning (6 hours with Image Analysis above)

6.1. Please review Section 6.4 of the Summary Report. Was the initial vegetation classification map adequately calibrated and adjusted to take into account forest inventory results?

The HCSA Toolkit provides more guidance on how to incorporate the forest inventory results into the land cover map.

Finding: Yes. As described above, a large number of plots were sampled and the results used to calibrate the final vegetation map with high accuracy in the opinion of the reviewer.

Reviewers Recommendation: None

6.2. Please review Section 8 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?

The HCSA Toolkit explain how to merge patches and identify the core area.

Finding: Comment regarding potential rice areas (see 2.3) for village development and rice field development (that were included in HCV 5) have been enclaved and incorporated into the final ICLUP.

Reviewers Recommendation: No further recommendations.

6.3. Please review Section 8 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?

The HCSA Toolkit explains how to prioritize patches and go through the Decision Tree.

Finding: PA was carried out correctly, due to the high similarity between HCV areas and HCS forest, there is no additional areas identified for conservation through this HCS assessment which is correct.

Reviewers Recommendation: No correction required.

6.4. Please review Sections 9 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: AMR have proposed a valuable and manageable ICLUP for production areas, HCV and HCS conservation areas as well as respecting community wishes for rice development. The patterns of HCS / development land have been rationalized to create the maximum benefits for conservation and respecting community use in the landscape. The proposed ICLUP is thought to be manageable in its design and significantly reduces 'edge to area' ratios of conservation areas. Small areas initially proposed for development (but surrounded by forest proposed for conservation) have been removed and proposed for conservation and will help to optimize conservation outcomes in this highly threatened landscape.

Reviewers Recommendation: No further recommendations.