

HIGH CARBON STOCK APPROACH

HCSA PEER REVIEW REPORT

Company Name: Golden Agri Resources
HCS Assessment Area: PT Cahaya Nusa Gemilang
01 June 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. Candra Kurniawan led the HCS assessment.
- b) Was the HCS Team Leader a Registered Practitioner?**
Yes. Candra Kurniawan from GAR.
- c) Were at least two (2) HCS team members Registered Practitioners?**
No. Only Candra Kurniawan was a Registered Practitioner.
- 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>).**
Not applicable.

Questions for peer reviewers

(Peer Review Panel: Jules Crawshaw)

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 timing of this assessment was that it was done using Version 1 of the HCSA TK (the assessment was 2014 -2016, finally completed December 2017). The assessment was completed after May 2017 (when version 2 of the TK was released) however the assessment has not been updated to be consistent with Version 2 of the HCSA TK.

The reviewer has reviewed this assessment against HCSA TK version 2.

The major findings are :

HCV assessment : there was a large forest area in the concession at the time of the HCV assessment. Based on the information provided in the HCV assessment, this area should have been classified as HCV 1. This area was classified as non-HCV in the 2011 HCV report and as such has been converted.

Social : the write-up of the HCS Social Requirements does not follow the HCS TK and needs to be strengthened considerably. This is discussed in section 2 of this review. It is most important that all the Social Requirements are presented in the context of the GAR FPIC SOP which must embody all the HCSA Social Requirements.

HCS : Some of the key data sets were not able to be opened and the reviewer has requested that these be resupplied

Reviewers Recommendation:

1. Recommendations are provided in detail below. No further remarks from the reviewer.

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: Table 2 has a list of all the people involved in the assessment. However it only states what tasks they did, not their qualifications. The HCSA requires at least the lead and the GIS officer to be registered HCS assessors. Although the report was completed in 2017 and there would have been very few people with these qualifications at this time.

Reviewers Recommendation:

1. State whether the lead and the GIS officer were registered HCS assessors. If they weren't; state what training they had undertaken prior to the assessment. No further comment, when this assessment was done there probably weren't a lot of HCS registered practitioners to assist.

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:

As mentioned in section 2, there is a lack of documentation of the HCS social requirements.

Reviewers Recommendation:

1. If the HCSA Social Requirements have been fully undertaken in this concession then there needs to be better documentation of the methodologies and outputs. This has to be backed up with appropriate evidence e.g. minutes of meetings and attendance lists. No such evidence is currently presented.
 2. If the HCSA Social Requirements have not been completed prior to development then the company should follow "Box 2 Implementing the SRs when applying the HCSA to existing operations" which is on pg 23 of the Implementation Guide.
 3. The final HCS map does not include the area set aside in the PM and HCV processes. This needs to be added to the final HCS map.
- Additional remarks are provided by the reviewer in the next sections.

2. Social Issues (4 hours)

Please review Section 3 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 3.1 adequately represent and explain the community engagement, FPIC processes, and participatory mapping activities carried out?

Finding: The information provided in section 3.1 states that community engagement, FPIC processes and participatory mapping activities took place. However, no information is provided about these processes. These processes were probably undertaken very thoroughly, but with the information provided in the report it does not really document anything of note.

In section 3.2 there is mention of an SIA which documents background information about the 3 villages (Batu Payung Dua, Randai and Rangkung) that overlap with the concession.

Reviewers Recommendation:

It is important that base information is provided about each of these processes (community engagement, FPIC processes and participatory mapping). The reviewer recommends that information is provided about :

1. Company SOPs that address these processes. There was no company FPIC SOP provided to the reviewer. If the company does not want to share this it should could tabulate how the main requirements of FPIC (as described in the HCSA Social Requirements) have been addressed in the company's FPIC SOP.
2. Provide timelines of the activities that were undertaken relevant to these processes. Note that in section 2.2 of the HCS report there is a timeline – but no information is given about when the FPIC processes were undertaken nor PM activities. These should be inserted into the timeline. Information has now been added about when the PM was done (June 2016). However, there is still no information provided about when a lot of the FPIC activities took place (e.g. FPIC related to the GRTT processes are still not in the timeline.)
3. Describe the methods that were employed and how these methods address each of the requirements of the HCSA. The FPIC requirements are described in SR7 (module 5 HCSA TK). Community Engagement and PM are described in SR1 – SR6. Additional information has been provided in section 3.1. This is about the “methods” employed but no “findings or outputs” are provided (e.g. that a procedure for communication between the company and the villages was decided upon that involved....”).
4. In the case where there are separate PM reports – these need to be referenced and relevant summary information placed in section 3.1. No PM reports are provided.

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

Finding: There is no mention of a specific tenure study having been undertaken.

Page 8 of the HCS TK Module 2 states– *“The Land Tenure and Use Study requires field research, which is conducted in a participatory and inclusive manner with affected communities and other local stakeholders. This study covers land tenure and rights issues in detail, including in relation to inheritance and transfer, and identifies potential or actual areas of conflict. The study also assesses existing community practices in relation to livelihoods and conservation, including the usage patterns of areas to be proposed for conservation, whether use is economic, social or cultural.”* It appears that most of this information is in the PM reports and as such needs to be summarised in the main report.

It is important the village boundary maps be brought into the main report as these are important information.

Reviewers Recommendation:

1. Provide a map of the concession overlaid with the village boundary maps. This has been provided – Gambar 2.
2. Summarise the relevant information from the PM that is required by the HCSA for the LTLU Study. This has been summarised in section 3.7 of the Full HCS Report this shows land use and the areas that that community would like set aside from development (river buffers and steep areas).

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: There is mention that PM has been undertaken in 3 villages.

Information is provided in gambar 14 which shows a map of the land use in the area (which is primarily oil palm or mixed agriculture). This is part of the requirements of food security. However Advice Note 1 (section 4) requires a lot of analysis of area available for agriculture in comparison with the current and future populations. Similarly, Advice Note 1 requires detailed discussions with communities relating to food security.

Reviewers Recommendation:

1. Refer to the 3 separate PM reports from the villages that overlap with the concession. By doing this the reader knows that there is more detailed information available in the PM reports. More information should be transferred to the summary report about the PM. Readers will not have access to the Full HCS report.
2. Present the analysis (required by Advice Note 1) of the current and future food security. Advice Note requires this analysis “Calculate the minimum amount of land to be allocated for food security based on the requirement that 0.5 ha of farmland per person shall normally be allocated for food production.” Which still needs to be added to the report.
3. Present a summary of the discussions with communities relating to food security as required by Advice Note 1.

- 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 affected communities are not actually listed in this report.

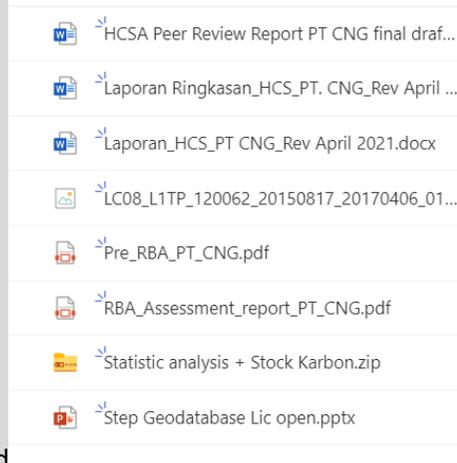
The following is stated :*“Proses keterlibatan masyarakat telah dilakukan oleh perusahaan sejak awal pembukaan kebun hingga saat ini. Penjelasan berupa informasi dari setiap tahapan proses kegiatan dan proyek yang memberikan dampak kepada masyarakat senantiasa dilakukan. Pemberian informasi di awal dan masyarakat diberikan kebebasan untuk memutuskan. Pun pada pelaksanaan kompensasi lahan pun dilakukan konsultasi terlebih dahulu dan sesuai dengan kesepakatan yang muncul dimasyarakat.”* Which indicates an FPIC process was undertaken, but the information provided in this paragraph is extremely general.

An SIA and PM was undertaken which provide information for FPIC. However it is not mentioned that the SIA and PM reports were shared with the communities in order to fulfil the “informed” element of FPIC.

No information was provided about the community nominating its own representatives.

Reviewers Recommendation:

1. Given the importance of the “affected communities” to the HCSA process, these communities should be listed in a table within the report - clearly stating these are the “affected communities”. The company provides a good description of the process of FPIC that has been undertaken...BUT... they still need to include an unambiguous statement such as “The affected communities are x, v and z.”
2. Provide the company’s FPIC policies or at least refer to FPIC being done consistent with the policies. The FPIC policies have not been provided to the



reviewer. This is what was provided

3. Provide minutes of meetings and attendance lists of meetings that took place prior to development. These minutes should clearly state what information was provided about the development to the communities and if the SIA and PM were shared with the affected communities prior to development. The PM report was not provided to the reviewer.

4. Provide information about the community nominating its own representatives (if this took place).

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:

Information is provided in the SIA about negative impacts of the development mentioned by the community at the time of the SIA. Recommendations were made about how to mitigate these impacts.

There is no record of environmental related recommendations made by the community.

It is stated that the "masyarakat diberikan kebebasan untuk memutuskan" – which indicates that the community was given the ability to say "no" but it doesn't specifically say that someone made the community aware that they could say "no".

There is no mention that the community were made aware that they had the right to independent legal representation.

Reviewers Recommendation:

1. Provide information about consultation with the community of environmental impacts of development and the associated recommendations to mitigate these impacts. If this information is in the HCV report, a summary should be placed in section 3 and reference made to the HCV report. There is a table of the social impacts of development provided (2 impacts – the company is not reporting outside workers to the Village administration and the company is not prioritising local workers) – which seems rather brief. It is stated that environmental impacts are provided in the annexes of the HCV report – but no annexes have been provided.
2. Depending upon what actually happened, the report should state that the community were made aware that they can say no to the development.
3. If the community were made aware that they had the right to independent legal representation, this should be clearly stated along with the mechanism for this representation (if it was deemed necessary). The following is stated – which addresses points 2 and 3 “Sosialisasi dan Konsultasi, yaitu menginformasikan kepada masyarakat mengenai rencana kegiatan yang akan dilakukan, masyarakat yang diberikan kebebasan dalam atau tidak melaksanakan rencana kegiatan. Selain itu dalam hal ini masyarakat yang diberikan hak untuk didampingi pihak / lembaga lain sebagai penasehat hukum, dan / atau sebagai pengamat.”
4. All these elements should be in the GAR FPIC SOP. As such the discussion should be provided in the context of compliance with this SOP. It is mentioned “Seluruh kegiatan proses FPIC mengacu pada SOP FPIC yang dimiliki oleh internal perusahaan disusun pada tahun 2014 dan direvisi pada tahun 2017 (Lampiran 2).” Though this SOP was not provided. It is recommended to provide it so that each of the HCSA required FPIC activities can be cross-checked against the SOP.

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

Finding: Very little information about the community consultation has been provided in the report. So the reviewer cannot make any substantial recommendations at this stage.

Reviewers Recommendation:

If the recommendations in 2.1 -2.5 are described adequately, this will adequately fulfil the FPIC requirement.

More information has subsequently been provided. However, the descriptions focus very much on the “methods” that were undertaken and the only output that has been provided are the participatory maps. It is mentioned that these outputs have been provided in Annexes, SOPs etc. These have not been provided.

3. Ecological and Conservation Values (4 hours)

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

Finding: The summary provided in section 4 is a copy from the HCV report. It cannot be interpreted without associated maps.

Reviewers Recommendation:

1. Provide a map of each HCV with the underlying landcover. These maps should label all the areas mentioned in the table in section 4.

This map has now been provided. Which now raises the question about areas in the river buffers that have been converted to oil palm. (see detail from map below). This should be explained about the remediation that will take place.



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?

The HCV Report can be found in the SharePoint.

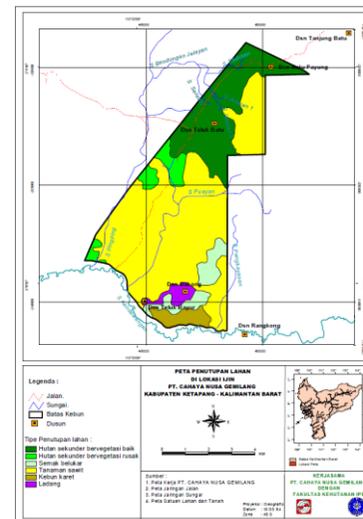
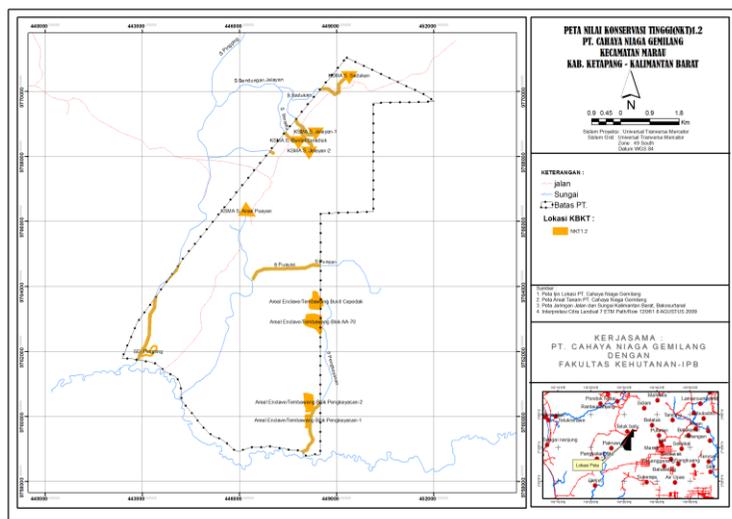
Finding: The HCV report was undertaken in 2011, which pre-dated the ALS. Therefore, it has not achieved a satisfactory rating.

Methodology: This section is extremely general (it is more about how to do “an” HCV assessment rather than how “this” HCV assessment was done) and lacks specific information required by the reviewer to make worthwhile comments. It appears no scoping was done and also any land cover mapping was done after the assessment was completed. This raises the question as to how the assessors ensured they assessed all the habitat types. Regarding the social assessment, it mentions information was gathered from the community about basic needs. However, there is no information is provided about which communities were interviewed and how the assessor ensured an adequate cross-section of the community had input into the assessment.

Site / landscape description : Generic site description information is provided. This consists of a suite of lists e.g. a list of flora and fauna species present. However, there is no interpretation of this to state that this is primary forest or depauperate secondary forest and how this is reflected in the species presence. Similarly, there is population data provided, there is no interpretation of this data e.g. the density of population and how it relates to land use / availability in the area.

HCVs : The wider landscape is not mapped and 2011 predated the requirement to map HCVs that extended beyond the concession boundary into the wider landscape.

HCV1.2 – it states that *Shorea balangeran* (which is IUCN:VU not CR) is present but only very small areas of forest are mapped out as HCV1.2 in comparison with the total forest area. See the maps below – only a tiny area of the forest in the north west is mapped as HCV1.2 and areas along the eastern boundary (which are OP) are mapped as HCV1.2



HCV1.3 – exactly the same logic has been applied to HCV1.3. There are a 2 mammal species that meet the criteria of HCV1.3 in table IV-6 but this is inconsistent with table III-12 which shows 9 mammal species e.g. *Rusa unicolor* (VU). *Rusa unicolor* would unlikely survive in a tiny patch of forest as mapped for the HCVA. This is a major issue as this has led to the mapping of a large area of forest (Hutan sekunder bervegetasi baik) as non-HCV – based on the information provided here, it should have been HCV 1.3.

HCV2.1 – The methodology used for identification of HCV2.1 does not match the methodology described in the Indonesia HCV TK. The assessor is supposed to be testing for forested areas with large cores, whereas a totally different approach has been used.

HCV2.3 – The indicator species for HCV2.3 are present (e.g. Eagles - *Haliastur indus*, *Hirundo tahitica*, *Ichthyophaga ichthyaetus*, *Ictinaetus malayensis*) yet only a tiny area of HCV 2.3 is identified. These are wide ranging species that require large areas of reasonably intact vegetation (The Indonesia TK describes this as “a large, non-fragmented area with diverse ecosystem types”).

HCV3 – The Indonesia HCV TK describes 2 methodologies for identification of HCV3 (precautionary and analytical). The process used by the assessor doesn’t appear to follow either approach. If either of the Indonesia TK methods had been followed the large forest area probably would have been mapped as HCV3.

HCV4.1 -4.2 are acceptable.

HCV4.3 does not follow the method described in the Indonesia TK. With the large forest area mapped in the NW (see map above) – one would expect HCV4.3 to be present.

Based on the above information all the area that was mapped in the original HCV assessment and classified as “Hutan sekunder bervegetasi baik” (dark green in the right hand map) should have been classified as HCV1.

Reviewers Recommendation:

1. As far as recommendations go. The assessment is now 10 years old, so short of doing a whole new HCV assessment (which is probably not palatable to the company) it is hard to make any worthwhile recommendations. The only thing to be aware of is the limitations of the current assessment. As mentioned, the way HCV assessments are done now, the large forest area would have been classified as HCV1 and potentially HCV3. But now all this area has been converted. No further comment.

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?

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: Section 9.2 states that a Pre-RBA took place on all the patches “Dari hasil Patch analisis menunjukkan bahwa dari semua patch yang ada termasuk dalam prioritas menengah (38,17 ha) dan prioritas rendah (109,93 ha)” – but only pre-RBA is required on medium priority patches. Then the text states “Dengan adanya kegiatan pra-RBA di seluruh patch potensial HCS yang terdapat di PT. CNG, maka tidak diperlukan adanya kegiatan groundcheck.” (With the pre-RBA activities on all potential HCS patches in PT. CNG, there is no need for a ground check.)

Reviewers Recommendation:

1. Please make the text more specific – regarding the pre-RBA, it should state what conditions were found in these patches that meant that they were

inappropriate for development. An excellent pre-RBA and RBA report have been provided. However table 14 still does not state what conditions were found in the patch to make it recommended for conserve or otherwise. It is recommended to use the following table from the pre-RBA report to support the decisions.

Tabel 2. Komposisi atribut yang ditemukan di tiap Patch pra RBA

No	Atribut	Patch						
		1	2	3	4	5	6	7
1	Sungai permanen dengan lebar > 2 m	√	√	√	√	-	√	√
2	Sungai musiman dengan lebar > 2 m	-	-	-	-	-	-	-
3	Mata air	-	-	-	-	-	-	-
4	Rawa atau kawasan yang tergenang permanen	√	√	√	√	√	√	-
5	Lereng curam	-	-	-	-	-	-	-
6	Bukti pemanfaatan masyarakat	√	√	-	√	√	√	√
7	Jalur akses yang digunakan secara teratur	√	√	√	√	√	√	√
8	Pemanfaatan lahan yang mengganggu konservasi dan pengembangan	-	-	-	-	-	-	-
9	Lokasi dan aksesibilitas	-	-	-	-	-	-	-
10	Satwa liar dan tumbuhan	√	√	√	√	√	√	-

2. Explain why LPP required a pre-RBA as this does not match with the patch analysis flow chart. Actually, the company may have done the correct procedure. There is a mismatch between the patch analysis flow chart and the text. It is not clear which takes priority when the textual description and the flow chart conflict.

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: There are recommendations made but they are incredibly general. For example “1. Menyusun rencana pengelolaan yang didasarkan pada hasil identifikasi HCS” – this has basically restated the title of this section. What is supposed to be in this section is the management activities for managing the HCS areas. This means stating who owns the HCS areas (company or the community) and what joint management and monitoring activities are going to be undertaken to stop degradation of the HCS areas.

This extends to the Social requirements e.g where the implementation of FPIC may have found to be lacking, what steps can be made to redress these issues.

Reviewers Recommendation:

1. Provide more detail regarding the specific joint management and monitoring activities are going to be undertaken to stop degradation of the HCS areas. Below the company has mentioned community based monitoring and Masyarakat Siaga Api. This should be added to the report with a discussion on these activities as well as the conservation outcomes.
2. Extend the discussion to the social requirements – where the implementation of these SRs may have been found to be lacking, what steps will be made to redress these issues. No further information has been provided.

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: There is no mention of the boundaries of the AOI in section 6.1 of the report.

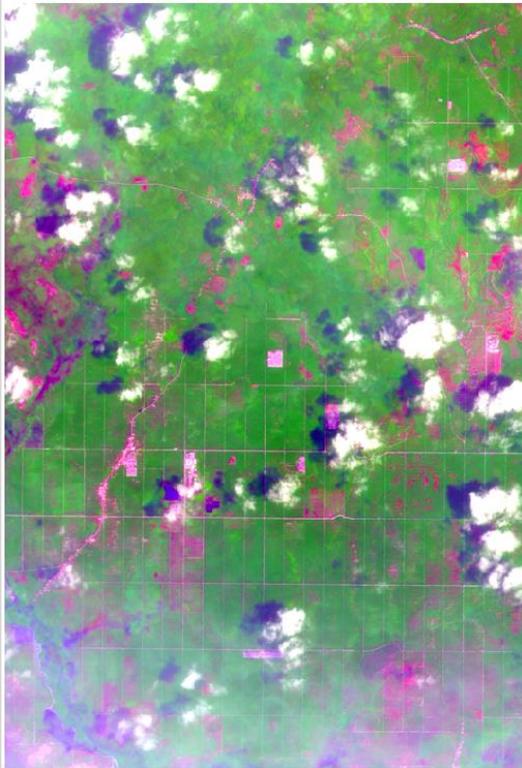
Reviewers Recommendation:

1. Describe the boundaries of the AOI and provide a map of these. It is stated that “Penilaian High Carbon Stock (HCS) dilakukan di PT. CNG yang berdasarkan Ilok diperoleh pada 6 Februari 2009 seluas 3.447,17 Ha.” However, the HCSA requires that the AOI be extended to include a 1 km buffer

around the concession. This should be clearly stated and included in the assessment.

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: An image was provided dated 1/5/2015, based on the timeline, this was the image used for updating the stratification (Section 2.2 step 6). This image has a lot of high cloud in the south, which would mean automated classification won't work.



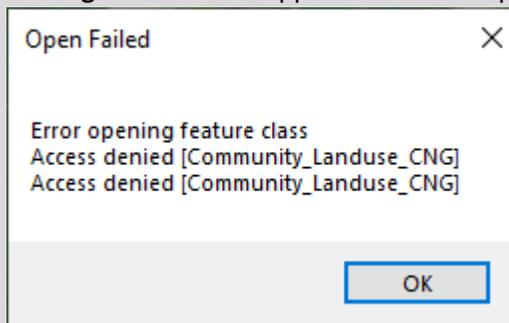
Reviewers Recommendation:

1. Provide all the images used for classification. Another less cloudy image has been provided. Nevertheless the other image is still quite cloudy over the AOI.

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?

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

Finding: The datafile appears to be corrupted, all the spatial files opened with the following error message.



Reviewers Recommendation:

Provide the files again – maybe in shapefile format would be easier. The company shared some instructions about how to open the file but did not share the required license file, so the reviewer could not open the data.

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: Based on the description, the plots were set up and measured properly. The description closely follows the toolkit. With respect to the layout, only 5 plots were measured within the concession. However the company has used many other plots external to the concession (table 12 has the aggregate data of 103 plots). This is allowed by the HCSA (Advice Note 1 Section 2.2), however this requires a “clear and reasonable justification is provided as to why some plots cannot be located within the development area and AOI.”

Table 9 states that there are 2 plots in HRM and 3 plots in Belukar, but the map (gambar 7) shows that all the plots are in HRM.

Reviewers Recommendation:

1. Provide a clear and reasonable justification as to why some plots cannot be located within the development area and AOI. It is stated “Perhitungan jumlah dan sebaran titik contoh di PT KGP dilakukan secara landscape dengan perusahaan lain di region Ketapang, Kalimantan Barat (PT Kencana Graha Permai – PT KGP, PT Bangun Nusa Mandiri - PT BNM, dan PT Cahaya Nusa Gemilang – PT CNG)”. But no justification has been provided here.
2. Map the locations of the other 98 plots that were located outside the concession. There is no Annex to the full report provided to the reviewer. It is suggested to put this map in the annex of the Summary Report.
3. Undertake the analysis described in Advice Note 1 which proves there is no statistical difference between the matching stratum (from inside and outside the AOI). Data has provided but there is no analysis showing there is no statistical difference between stratum inside and outside the AOI. Furthermore only data is provided for 85 of the 103 plots.
4. Ensure consistency between gambar 7 and table 9. No information provided.

5.2. Please review Section 7.3 of the Summary Report. Was the forest inventory team qualified?
The HCSA Toolkit describes the expected qualifications of the forestry team.

Finding: No information is provided about the qualifications of the forest inventory team.

Reviewers Recommendation:

1. Provide information about the qualifications of the forest inventory team. The below information should be added to the summary report.

5.3. Please review Section 7.4 of the Summary Report. Was the allometric chosen adequate?
The HCSA Toolkit provides more guidance on choosing an allometric equation.

Finding: Two allometrics are used, Basuki (2009) and Manuri (2014), for mineral and peat soils respectively. No peat is mentioned in this area so it is assumed that only the Basuki allometric is used.

Reviewers Recommendation:

1. Provide information about the peat areas in the concession or remove mention of this allometric.
2. Provide references for these allometrics.
Information has been updated.

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

Finding: Only the plot sheets of the 5 plots have been provided, compared with 103 plots used in the statistical analysis.

Reviewers Recommendation:

1. Please provide the plot data of all 103 plots. Data for 85 plots has been provided not 103 plots as mentioned in the report.
2. Provide the statistical analysis of these plots that comes up with table 11 and 12. The data in the spreadsheet provided and the report do not match.

For example – there is no figure below in the spreadsheet

Carbon (Ton/ha)			
	N	Mean	Std. Dev
LT	2	38.62000	2
BM	28	32.13223	2
BT	35	79.11755	6
HK1	20	115.20899	5
Total	85	71.17925	6

Tabel-11. Hasil-perf

Strata	Rerata-Stok-Karbon-(tC/Ha)
HRM	79,12
B	20,96

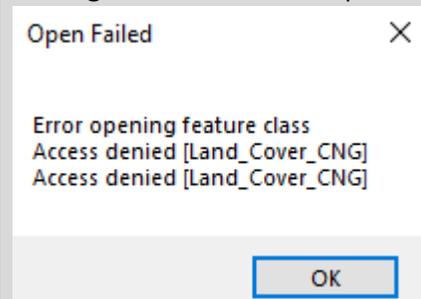
3. Undertake the analysis required by Advice Note 1 which proves there is no statistical difference between the matching stratum (from inside and outside the AOI). This has still to be done.

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

- 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?

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

Finding: The land cover shapefile cannot be opened.



Reviewers Recommendation:

Please provide a land cover shapefile that can be reviewed. The license file has not been provided.

- 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?

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

Finding: The patch analysis shapefile cannot be opened.

Reviewers Recommendation:

Please provide a patch analysis shapefile that can be reviewed. The license file has not been provided.

- 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?

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

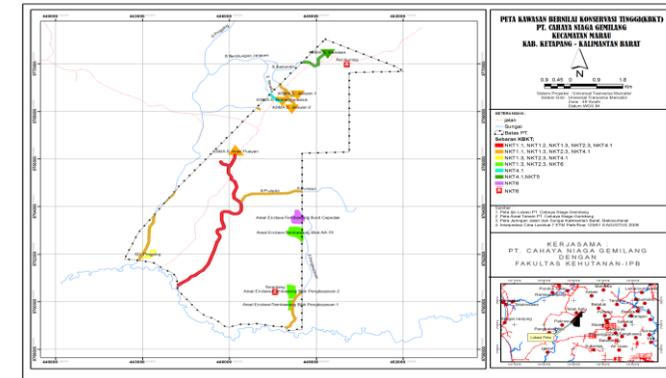
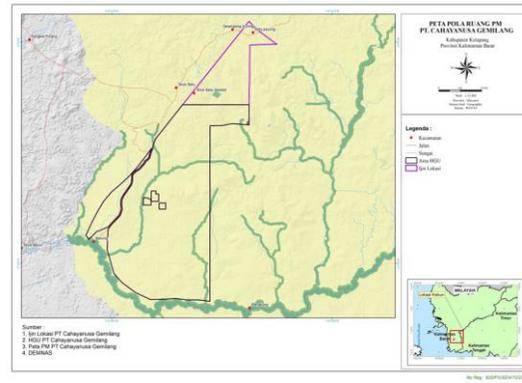
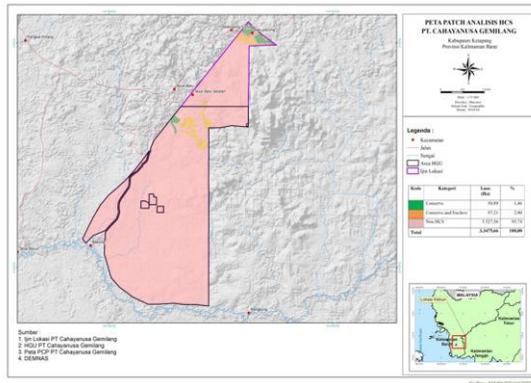
Finding: The patch analysis shapefile cannot be opened.

Reviewers Recommendation:

Please provide a patch analysis shapefile that can be reviewed. The license file has not been provided.

- 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: The final HCS map (Gambar 17) does not include the HCV areas or the areas set aside for conservation as part of the PM process. Also it does not take into account the areas outside the concession but within the AOI.

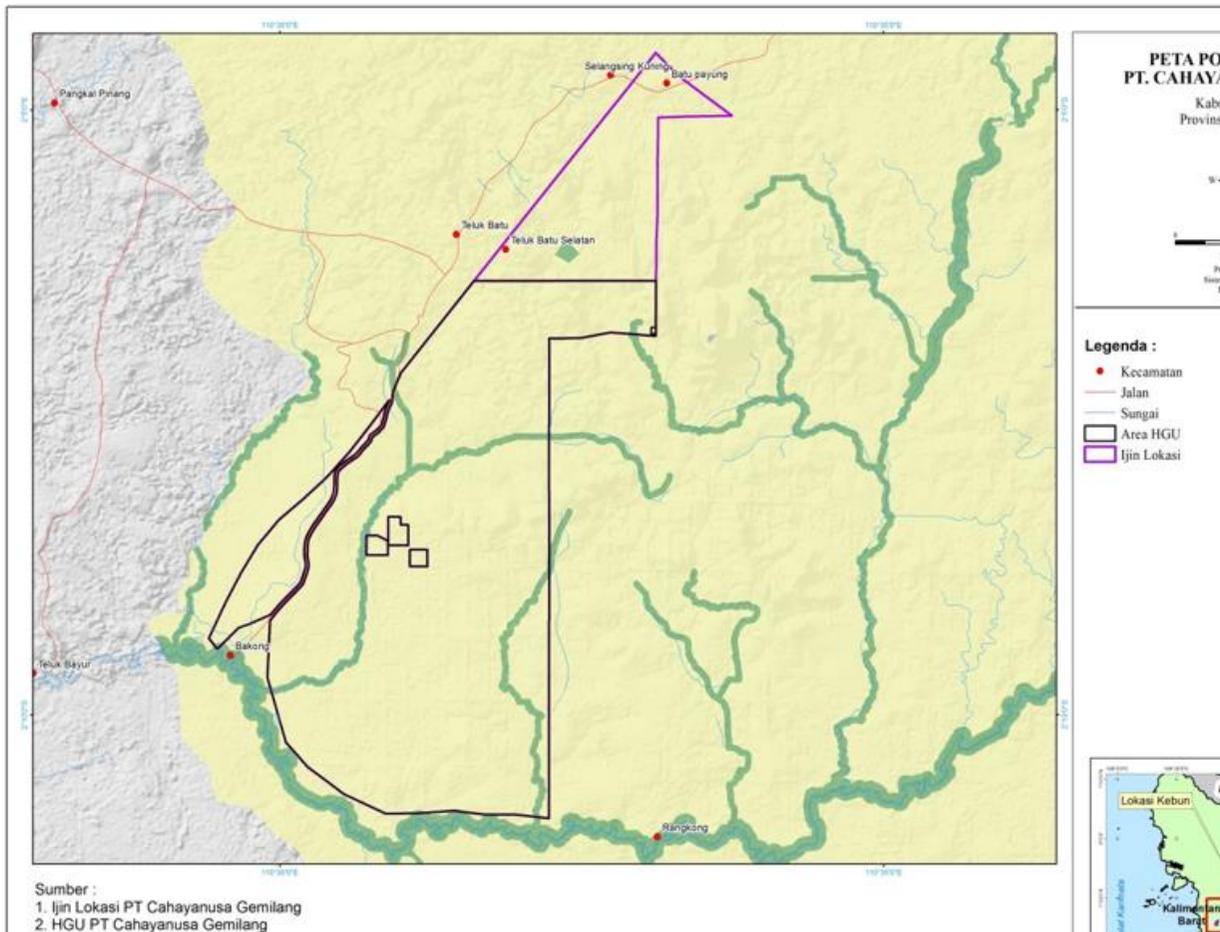


Maps above : Left: Final HCS map, Middle : PM map, Right : Final HCV map

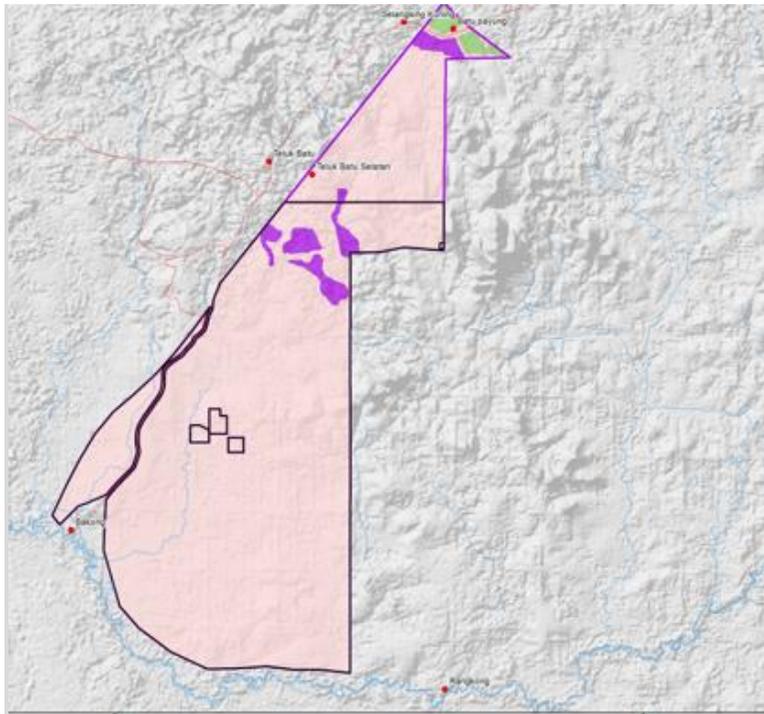
Reviewers Recommendation:

1. Provide a final HCS map that includes the set asides from the HCS, HCV and PM. Figure 16 only shows the HCS based on the PM (see the title).

Gambar-16. Peta Pola Ruang berdasarkan PM di PT. CNG



2. Include the HCS and HCV areas outside the concession but within the AOI. Figure 10 only shows the HCS areas inside the concession.



Cahayanusa Gemilang
Cahayanusa Gemilang
PT Cahayanusa Gemilang



Gambar-10. Peta patch-analisis