HIGH CARBON STOCK APPROACH

HCSA PEER REVIEW REPORT

Company Name: R.E.A Holdings Plc
HCS Assessment Area: PT. Prasetia Utama
10 June 2022

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. Aksenta is the organisation leading the HCS assessment.

b) **Was the HCS Team Leader a Registered Practitioner?**
Yes. Fersely Getsemani Feliggi is a Registered Practitioner.

c) **Were at least two (2) HCS team members Registered Practitioners?**
Yes. There were Fersely Getsemani Feliggi and Ryan Karida Pratama.

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

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 major findings are :

1.That the community engagement has been done very thoroughly in this area (by both the company and consultants).

2.The HCS study uses a recent HCV assessment that has been endorsed by the HCVRN. The findings of the HCV study are clear and well presented.

3. The output of the HCS study is clearly presented and gives the company clear guidelines and maps to enable them to plan their development.

Reviewers Recommendation:

1. There are some issues that need to be addressed and are discussed in detail in the on-going sections. The assessor has done a good job in addressing the 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:

There are 2 registered HCS practitioners on the team. There is a mix of forest inventory and GIS skills on the team. There is also a social expert

Reviewers Recommendation:

No recommendation

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:
The major reservation that the reviewer has is that the area that the assessor has classified as "belukar" in the land cover classification has been related to "scrub". Scrub is considered non-HCS forest and can be developed. However, looking at the dominant species there are Artocarpus, Macaranga, Vitex and Ficus listed in table 19 (which are all early secondary species). This is more typical of YRF than scrub.

The PADT has been done properly, except that connectivity with HCV has not been taken into account. Similarly patches that have been used as "take" patches in the Give & Take process should not have been used. Also, there is not adequate FPIC related documentation presented to support the GnT.

Reviewers Recommendation:
1. Present data showing the dbh distribution of the belukar areas, which clearly shows that this fits into the scrub category not YRF. Alternatively reconsider the belukar areas as YRF and re-run the PADT appropriately. This has been done.
2.Take into account the patches that are within 200 m of HCV areas as conserve - based Advice Note 4. This has been done, but the patches within 200m of HCV areas are not available as take patches in the Give & Take.
3. Present the required FPIC documentation to support the Give and Take process – consistent with the many requirements in Step 13 of the PADT. As mentioned below the documentation of the communities' sign-off of the GnT needs to be much more clearly presented.

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:

A series of FPIC / Community Engagements are described that date back to 2013 where the company developed the AMDAL and made initial approaches to the community leaders of 4 villages. This involved describing the company's plan to develop an oil palm plantation in the area. Subsequently in 2014 the company did an HCV study, SIA and completed the AMDAL. In 2018 the company did participatory mapping in conjunction with the 4 villages. In 2018 the company socialised its formal intentions to develop a plantation. These were documented as such :

"a.   Mekanisme pembebasan lahan dan penanganan konflik lahan.

b.   Program kemitraan dalam rencana pembangunan kebun plasma.

c.   Program pemberdayaan masyarakat (Community Development).

d.   Teknis budidaya kebun secara umum.

e.   Program pengelolaan lingkungan dan konservasi.

f.   Program perekrutan karyawan.

g.   Aspek penting program berkelanjutan (sustainable) dalam rencana pembenagunan kebun baru."

In 2019 the process of ganti rugi began with land inventory and survey. In Annex 3 there are discussions relating to the ganti rugi process along with attendance lists and photos. Notes were also provided which documents the questions that the community asked and the associated replies.

It appears that all the necessary processes were undertaken for good FPIC and community engagement. The report is also reasonably thorough, however what is lacking is what was presented to the community at these meetings. Looking at the questions that were asked, these questions are all about the process of ganti rugi. There is no mention of conservation or the results of the HCV assessment. The company has provided information about the Public Consultation from the HCV assessment, which shows the HCV area map and then the discussion with the community. This covers the HCV assessment but not the many consultations that took place regarding the ganti rugi process – these took palace long before the HCV assessment - (e.g. were the

company's sustainability commitments mentioned to the communities and explained how they would be implemented in practice).

Participatory Mapping – in the section on PM the main information presented is in table 9. This reads more like an interview with the community for an SIA than a mapping process (e.g. people describe the history of the area, population, someone else asks if they will pay ganti rugi for his durian trees etc). No actual maps are presented and there is no actual description regarding the process of PM. There is no discussion of the PM methods that follow those in Appendix 3 of the HCS Implementation Guide. There is no PM description or map output in an Appendix.

Reviewers Recommendation:
1. Include the presentations that were made to the communities. This should include information about conservation area management and monitoring and collaboration with the communities on conservation issues. Usually communities are concerned about fire and riparian buffers. It must be explained what was agreed with the communities regarding these issues.
2. The report mentions four villages (Muara Ritan, Buluq Sen, Umaq Dian, Muara Pedohon). A map should be provided of the village boundaries and it should be stated clearly that these are the "affected communities" as this is a key concept to HCSA study. It is now stated that these villages are "affected communities"
3. Regarding the PM – describe the methods (e.g. what was used as a base map and what key features in the landscape that were used), subsequently what were the community members asked to mark on the map. From there provide the raw and the georeferenced output and describe how this was subsequently used in the HCS assessment. Information has been provided about the base map – which was a sketch map with main physical features drawn on it (e.g. concessions, villages, roads and rivers). Information about land tenure and land use was added by the community. Gambar 11 is the sketch map and Gambar 12 is the results. Though the reviewer cannot see the link between the information on the sketch map and gambar 12 (which looks like land cover interpretation from a satellite image.

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

Finding:

The HCSA TK on the tenure study states the following :

"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."

In this section there is a brief history of the area provided and a discussion of how land is used (dry rice and later the planting of oil palm). Land Tenure is secured through shifting agricultural, which over time allows the Dayaks to expand their land.

Reviewers Recommendation:

1. The concept of ownership is very briefly mentioned. However, the reviewer would expect the report to go into more detail about how traditional land tenure system work and how this is traditionally administered (i.e who administers the land tenure system in the Dayak villages and how are disputes resolved). This has been added.

2. There is no mention of local concepts of conservation, such as setting aside river buffers and sacred places or sacred trees (e.g. fig trees). There is mention of sacred sites being cared for, but it is stated the community has no rules for conservation of resources.

3. Information on inheritance and sale of land, both traditionally and the process of compensation being paid by the company works at a local level. Additional information about inheritance has been added

4. One of the outputs of the LTLUS should be confirming the affected communities and their boundaries (as recognised by the local communities). This should be provided in map form. Gambar 7 shows village boundaries but this is based on government data (BIG, 2020). It is not mentioned whether the boundaries have been drawn with the communities to ensure the government boundaries and the locally recognised boundaries are congruent. Nevertheless, it is mentioned that several villages state that their boundaries lie within the concession boundaries.

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 no actual participatory land use map provided. Though the text does mention a team being formed but it doesn't mention exactly what the team mapped.

Advice Note 1 section 4 lists the required outputs of the food security analysis, one of which is to calculate the minimum requirement for food security.

Reviewers Recommendation:

1. Provide the output of the PM team which must include mapping the key components of community land use ("Provide geo-referenced participatory mapping data on current land use in the assessment site." – from AN 1 section 4).   Gambar 12 includes the results of PM – though it looks like the results of the satellite image mapping and maps land cover, not land use – furthermore the information from the sketch map cannot be seen on Gambar 12.

2. Use the population data from table 7 to calculate the minimum requirement for food security. Also some form of projected area requirement should be made based on population dynamics. Calculations of land requirements have now been added, which shows there is adequate land available.

3. Discuss the following topics, as required by AN1

"The following topics should be discussed with local people during this process, as applicable:

• Any regulations that have specified a certain allocation to local communities.

• The role, if any, played by farming in safeguarding food security, in settings where local communities no longer grow the bulk of their own food and are more reliant on outside food supplies.

• The most effective way to ensure current and future food security in settings where population densities of customary communities are such that the minimum allocations are not achievable.

• The role of the minimum land allocations for essential livelihoods based on activities other than farming, such as fishing, hunting or the collection of non-timber forest products, which may also be affected by the proposed development." A discussion on land allocation by the government to fulfil food security requirements has been added. Also it has mentioned that the company has brought a lot of newcomers to the area, while also the development of a main road has enable goods and services to be easily brought in.

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: There are records of consultations with affected communities. Examples of these are provided in Annex 3 – which shows photos and attendance lists as well as meeting notes. The content of these appears to be about the ganti rugi process and not about HCSA or conservation issues. Nevertheless, the reviewer notes that the company has done a good job at documentation and subsequent filing of records of meetings.

Indonesian communities have an existing government bureaucracy at the village and kecamatan level which is elected. One of the bureaucracies' tasks is to represent the community in relations with the company. This is not expressly discussed in the report.

Reviewers Recommendation:

1. Explain briefly how the village institutions work in order to represent community members in dealing with the company. The report should mention that the rank and file members of the community elect their representatives to undertake this task. There is a discussion about the bureaucratic process and how the community elects representatives.

2. Discuss how the HCS Approach was socialised to the community and what agreements were made relating to conservation and management and monitoring with the local communities. A general discussion has been added about how HCV and HCS were socialised to the community. The discussion refers to Annex 3 (annex 3 is provided). There is mention of collaboration required to manage conservation issues and issues such as human / wildlife conflict.

3. All the concerns raised appeared to relate to ganti rugi. Explain how the company will manage the conservation areas in the landscape in collaboration with the community. There is mention of patrols and collaboration with the community to manage conservation related issues.

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:

It is stated in the report "Sejauh ini perusahaan telah melakukan sosialisasi dan perundingan dengan masyarakat berkenaan dengan pembebasan lahan secara keseluruhan. Dalam FGD yang dilakukan Tim Aksenta dengan masyarakat di kedua desa di wilayah kajian, menyatakan bahwa tidak pernah terdapat pemaksaan, ancaman (intimidasi) yang dilakukan oleh perusahaan dalam kaitannya dengan sosialisasi dan pembebasan lahan." The reviewer accepts this explanation, however, in the future the report should be absolutely unambiguous about whether the community had the right to say "no to

development". This should be explicitly stated in the report. Reference should be made to the company's SOPs (which should state that the community has the right to say "no to development").

There is no mention of the community being informed that they have the right to independent legal representation with regard to their agreements before they sign.

Section 4.4. of the HCS report on FPIC is well written and informative, furthermore it gives the company clear guidance on follow up actions required.

Reviewers Recommendation:
1. Provide an explicit statement in the report as to whether the community was told that they could say "no to development". It is now stated that the community had been told that they can say no to development.
2. Reference a statement in the company's SOP that the community can say "no to development". If this is not in the SOPs it should be added for ganti rugi that takes place in the future. Reference is made to the company's SOP which supposedly requires the wishes of the communities to be respected.
3. Add the company's FPIC SOP to the annex for reference purposes. As above
4. Only 2 villages, Desa Muara Ritan dan Desa Buluq Sen, are mentioned in the FPIC. It needs to be explained what happened in the other two affected communities (Umaq Dian, Muara Pedohon). It was noted that the socialisations of the latter villages were affected by Covid. As such the socialisations were done at a later date, this is now mentioned in the report.

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

Finding: The reviewer believes that the company and the consultants have done a good job with the community engagement. The only major thing that is not mentioned is reference to the company's SOPs. The process of land compensation that has been described is very important that it is done properly and documented processes are rigidly followed. This will largely determine whether the plantation is free from social conflict or not.

Reviewers Recommendation:
1. In the current documentation there is no reference to SOPs – if there are no FPIC SOPs, these should be written and signed off. Otherwise the SOP should be provided and the description of the FPIC process in PT PU should refer to the SOP and how each step in the process that was undertaken was fulfilling the SOP. FPIC SOPs are now provided.

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:** This appears to be a direct copy paste out of the HCV report – as such, it correctly presents the findings of the report.
>
> **Reviewers Recommendation:**
> 1. No recommendation.

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 report was judged as satisfactory by ALS
>
> **Reviewers Recommendation:**
> No recommendations

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:**
> The areas that qualified for the Pre-RBA test were MPP that were in high risk areas. All the patches except two were deemed to be indicative conserve because they were in riparian areas of Sungai Belayan based on the pre-RBA. The text regarding the two patches that progressed to the RBA states "Hasil RBA pun menunjukkan bahwa kedua patch itu bukan merupakan habitat penting serta tidak ada indikasi keberadaan spesies kunci" – it was not stated

what methodology was used for forming this conclusion. However, the reviewer assumes the assessor used the results of the HCV report which does not map HCV over the areas of the two aforementioned patches. The HCV report maps the area of the 2 patches as semak-belukar, whereas the HCS report maps them as belukar. The HCV report appears to have used belukar forest cover (or better) as being a proxy for the presence of HCV1. Given the difference in mapping between the HCV and HCS a field visit should have been undertaken.

Reviewers Recommendation:
1. Include a description of the RBA methodology. As explained the reviewer does not believe that the HCV report can be used as (based on Map 2 in the HCV report) there was no sampling done in the areas of either RBA patches. All the RBA patches are now classified as conservation based on the proximity to HCV areas.

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: The recommendations all make sense (e.g. good FPIC, good communication with the community, mutual commitments to not open conservation areas, formation of M&M teams with the community). In reality this lacks detail. The main issue is whether the company will be paying land compensation for the conservation areas. Once roads are built which gives the community access to conservation areas, the community will also want to develop these areas. Similarly, if the company does not pay land compensation for the conservation areas – it needs to be explained, what benefits will be provided to the landowners to stop them developing the land? Also, will landowners be willing to have company signs about conservation areas in front of land which is not owned by the company?

There are HCS forests outside the concession – no specific mention was made of these areas.

Reviewers Recommendation:
1. State clearly whether the company will pay land compensation for conservation areas. It is now explained that the company compensates for conservation areas within their concessions.
2. If the company doesn't pay land compensation for conservation areas; explain what benefits will be provided by the company to stop the community developing conservation areas. As above.
3. State how management and monitoring measures will be applied to areas outside the concession (and therefore outside the company's control). It is explained that a collaborative conservation team will be added.

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: The AOI was defined as the concession and a 1 km buffer around the concession. This is consistent with the HCS Approach.

Reviewers Recommendation:
No recommendation

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: There were multiple images used :
The primary image was Landsat 8, date of acquisition 31/10/2021 and cloud cover 15%
Then there were multiple images such as Sentinel 2, date of acquisition 12/10/2021 which were used to fill the areas of cloud cover. Both Sentinel and Landsat are of adequate resolution. The survey started in November 2021, so the images are well within the time window required by HCSA.

Reviewers Recommendation:
No recommendation.

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: 4 images have been provided to the reviewer and these are 1 m resolution images and no date is provided with them. They appear to be very old as the images do not represent the "mapped landcover". For example the image below – there are many areas mapped as ladang or sawit, whereas most of the area appears to be degraded secondary forest.

Additionally the reviewer is confused with the classifications – semak belukar has frequently encountered species as Artocarpus, Ficus and Macaranga – which are indicative of YRF (from HCSTK mod 4 pg23 "Dominated by trees with diameter 10-30 cm and with higher frequency of pioneer species, e.g. Macaranga", however the assessor has classified these as scrub and excluded these areas from the patch analysis. The photos of the Belukar plot on pg 46

look like YRF also. Also reviewing the tree diameters (e.g. plot 457) there are many trees 20 cm + dbh. The reviewer believes that the assessor has mis-classified the Belukar as scrub and therefore excluded from consideration as HCS Forest. All the plot data has been provided in pdf format so the reviewer cannot analyse it.

There appear to be canopy trees present in the belukar areas – definitely scrub shouldn't have canopy trees in it.

Figure 1.Arrows point to canopy trees in area classified as scrub>

Reviewers Recommendation:

1. Provide the recent Landsat or Sentinel images that were used for the classification. Sentinel and landsat images have now been provided dated January

and March 2021. The Sentinel image is quite cloudy, but in conjunction with the landsat, these images are acceptable. However these are not used in section 6.3 of the report. The reviewer queries whether the company did actually review the classification based on these images.

Company's Response: The land cover classification was used Landsat 8 (acquired 31 October 2021) as a main image, in conjunction with other images as an additional (Landsat 8 acquired 21 March 2021 and Sentinel-2 acquired 12 October 2021, 1 December 2021, and 27 October 2021). This information has already stated in Section 6.2 (p.32).

2. Provide the plot data in excel format. The plot data has now been provided. Looking at the data it appears that the plots have been classified based on diameters. For example there is not one belukar plot that has a tree >30 cm. Note that plots should not be classified based on the data but in the field – Not page 22 of Module 4.

Company's Response: The plots have been classified considering the surrounded conditions.

The descriptions of each land cover category are relatively clear. On the ground, there is a spectrum of vegetation cover type from forest through to bare land and the cut-offs between vegetation types are sometimes difficult to ascertain in the field. Field assessment should take into account not only the conditions within the plot boundaries, but also in the areas immediately adjacent to the plot, when assigning vegetation classification. When a plot is located across clear vegetation cover boundaries, such as across the transition from forest to pasture land, then the plot should be relocated into one or the other vegetation type.

3. Provide a stand table in the following format so the reviewer can understand the diameter distribution. A stock table has now been provided.

Stand and Stock Table

Land cover class	Number of plots	Stems per hectare by DBH class					Carbon (tonnes per ha) by DBH class				
		Total	5.0-14.9	15.0-29.9	30.0-49.9	50.0+	Total	5.0-14.9	15.0-29.9	30.0-49.9	50.0+
		stems/ha					tonne/ha				
Forest											
YRF											
Scrub											
Open Land											

4. If the assessor considers that the belukar class should be YRF, then the PADT will have to be re-done. There are two classification systems which makes it very confusing to review – the land cover mapping where belukar = YRF. Then there is the plot data where belukar = scrub. In the future the assessor should use a consistent classification system throughout the mapping and analysis.

Company's Response: The land cover classification is refer to Indonesia National Standard (Standar Nasional Indonesia [SNI] 7645-1:2014 tentang Klasifikasi Penutupan Lahan-Bagian 1: Skala kecil dan menengah), while the forest patch classification refers to the HCS Approach Toolkit version 2 (Modul 4). The definition of these classification has already explained in Table 13.

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: Regarding the calculation of the number of plots required. The assessor is supposed to work out the number of plots required based on the expected mean C stock and the standard deviation. However the assessor has just used the numbers in the example provided in Advice Note 1. Looking at the location of the plots in Gambar 16 – it appears that most of the plots are on the side of the road. This would lead to a biased sample. This appears to be the same with the ground truthing.

The plot measurement procedure follows the guidelines in the HCS TK.

It should be clearly stated that vegetation classification is done at the plot. "Field assessment should take into account not only the conditions within the plot boundaries, but also in the areas immediately adjacent to the plot, when assigning vegetation classification."(HCS Approach, 2017)- module 4 pp22. It appears, looking at the carbon stock in the file "Titik_Plot_HCS_PU" that vegetation classifications have been done based on the carbon stock not based on the species present at the plot. This would avoid the situation, for example, where there is an ex-garden plot full of scrub, but there is a massive fig tree that was left by the community in the plot.

Reviewers Recommendation:
1. It is too late now as the survey is complete, but in the future the assessor should work out the number of plots per class themselves not just use the figures provided in the HCS example.
2. Provide a description of how the plots were located prior to going into the field. If indeed the plots were located near the roads, this will lead to biased data as loggers will have taken more trees and there would be more stand damage near the road. Explain how this was factored into the study. The assessor states that accessibility was a major issue and they avoided plots within 100 m of roads. However, a lot of the plots seem to be right on the road. The reviewer understands that accessibility is a major issue – but maybe doing transects square to the road could be considered.
<u>Company's Response:</u> The transects square will be considered in the next future.

3. It is too late now that the survey is complete, but in future the vegetation classification should be done at the plot. Nevertheless, the assessor must state, how vegetation classifications were assigned. The following description has been added "dengan mempertimbangkan hasil plot inventarisasi hutan seperti jumlah batang per hektar dan nilai karbon pada setiap kelas DBH (lihat Tabel 21)." As explained above, does not follow the toolkit.

Company's Response: The vegetation classification has been classified based on the field conditions including surrounding the plot, following the Toolkit. The forest inventory data was used as an additional consideration.

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: There were 2 HCS registered practitioners on the team and there were people with tree identification skills and forest inventory skills. The team appears to be well qualified.

Reviewers Recommendation:
No recommendations

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: The reviewer is not familiar with the equation used, however it has been published by the Indonesian Ministry of Forestry (now KLHK). This is a reputable source and the Carbon Stocks appear in line with what one would expect from this sort of forest.

Reviewers Recommendation:
No recommendations

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: None of the analysis was provided and all the raw data was provided in pdf format (which cannot be analysed). The Carbon Stocks appear to be what one would expect from forests in the area. Though the reviewer believes that the Belukar has been misclassified as scrub and it should be YRF.

Reviewers Recommendation:
1.Provide all the plot data in excel format along with the calculations of Carbon Stock (with the equations embedded in the worksheet). Provided.
2.Provide the ANOVA and scheffe worksheet. The reviewer was able to replicate the analysis and got the same results. However as mentioned in the previous section, if the reviewer classifies the plots by carbon stock – statistical separation will always be achieved. This is shown by the table below how the assessor has neatly divided the plots into classes based on the carbon stock, not on the forest association at each plot (as is required by HCSA).
<u>Company's Response:</u> The vegetation classification has been classified based on the land cover definition as stated in the SNI as well as HCSA Toolkit. The forest inventory data was used as an additional consideration.

	Lahan Terbuka	Belukar	Hutan Regenerasi Muda	Hutan Kerapatan Rendah	Hutan Kerapatan Sedang
Min C Stock	1.60	15.03	35.02	75.12	91.16
Max C Stock	12.67	34.33	74.46	85.84	238.83

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: The land cover and HCS plot shapefiles were intersected, the results showed that the landcover had been calibrated based on the classification of the HCS plots. The ground truthing points were not shared.

Reviewers Recommendation:
No recommendation

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: The results of the participatory mapping were not shared. The reviewer was unable to verify whether community lands were enclaved. There is no mention of any community lands and no community lands are enclaved during the analysis.
The merge has been done correctly.
No core area is provided in the PADT shapefile, however, visually the assignment of patches appears correct.
The connectivity analysis (between HPP and other patches) appears to have been done correctly. However there has been no analysis of connectivity to HCV areas. E.g. ID_HCS=46 overlaps with HCV areas but is not marked as conservation based on its connectivity to HCV areas. This is documented in Advice Note 5 because it has been left out of the flowchart in the HCS TK. Patch 73 is the same.

Reviewers Recommendation:
1. If there are no community lands – this should be clearly stated. The results of the PM should be provided else where in the report.
2. Provide the core area in the PADT shapefile.
3. Add areas that HCS areas that are within 200 m of HCV areas to the conservation area.
All 3 recommendations have been done by the assessor.

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: The patch analysis was done correctly except for :
1. Connectivity with HCV areas was not included (mentioned in 6.2).
2. Give and Take – some of the "take" patches are close to riparian areas (e.g. ID_HCS =19). These would not qualify.

The documentation associated with the GnT is not complete – the following information must be provided :

"c. With the Free, Prior and Informed Consent of communities, the restoration/conservation may occur on community-owned land, and/or create employment or income-earning opportunities for community members.

d. The process should involve the collaboration of other stakeholders, including local government and adjacent land managers if relevant.
e. The company must ensure there is a commitment and clear steps towards the permanent protection and funding of conservation and restoration sites as long as it is operating in the area. The transparent reporting, monitoring and restoration of the area is to be incorporated into a management plan along with the management of HCV areas.

f. The selection of areas for conservation/restoration considers the risks to the viability of these areas and the ability to achieve permanent protection via legal or other mechanisms.

g. A decision on whether active restoration is required is based on site suitability and likelihood of natural regeneration within the next five years."

Reviewers Recommendation:
1. Redo the patch analysis taking into account the connectivity with HCV areas. This has been done.
2. Exclude the "take" patches that are connected to HCV areas. There are still patches close to the HCV areas that are earmarked as "take" patches (e.g. FID=82 in file PADT_PU_Rev-1-1)
3. Provide all the necessary GnT documentations – e.g. community FPIC etc. Lampiran 3 mentions some FPIC being done with the community, but it needs to show the communities signing off on the GnT plan, not just some general discussion.

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: Figure 26 shows the overall concept of connectivity in the landscape to large forested areas outside (Heart of Borneo). There is connectivity down Sungai Belayan. Give and Take has been used to make the corridor as wide as possible. The concept seems to make sense.

Reviewers Recommendation:
1. Evidence of socialisation of this concept to the community should be presented in the final consultations with the community. The photos appear to show discussions about the participatory map, not the final result of the patch analysis.