

HCSA Peer Review Report

Golden-Agri Resources (GAR) – PT. Persada Graha Mandiri (PT. PGM)

Background information:

a) Did a Registered Practitioner Organisation lead the HCS assessment? If not, has the organisation which led the assessment started the process of registration?

Yes, GAR is a Registered Practitioner Organisation. This assessment was a pilot project on HCS Approach early development (February 2015 – June 2016). At that time, there was no requirement about Registered Practitioner.

b) Was the HCS Team Leader a Registered Practitioner?

No, the HCS Team Leader is not a Registered Practitioner.

c) Were at least 2 HCS team members Registered Practitioners?

No, only Candra Kurniawan is 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>).

Referring to the HCVRN ALS website, as at 9 August 2018, the evaluation status is **E/S - Report evaluation by Quality Panel is underway.**

98	HCV Assessment report at PT PGM and Cooperative MBM	The Forest Trust	RSPO (5.2)	<u>Samsul Ulum</u> Provisional	23/01/2018	E/S With ALS since 14/07/2018
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**Questions for peer reviewers
(Peer Review Panel: Jules Crawshaw)**

1. Peer Review Summary

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

Finding:

Generally, this survey appears to be well executed on the ground. However, the writing of the report needs to be improved. The reviewer found it often lacked details. (e.g. regarding the remapping of the landcover after the in-field verification)

The main points are:

- No mapping or consideration of patches external to the boundary. Particularly opportunities for HCS forest connectivity with neighboring GAR plantations.
- Information on the land purchases and land ownership in the area is essential information for the social context but has not been provided.
- The low priority / low connectivity patches require a pre-RBA and this was not done. This may have resulted in patches being incorrectly classified.
- There is no overall “land use plan concept” presented where connections are made between what currently appears to be a group of unconnected forest patches (section 10.2 of the summary report).

Reviewers Recommendation:

It would make it a lot easier for the reviewer if a time line was presented that included the major steps in plantation development as well of the dates of the various studies that took place.

- Land cover external to the concession needs to be added and taken into consideration in the patch analysis.
- The land use plan needs to be revisited with a good explanation of the ecological values that have been taken into account. The reviewer currently sees the result of the patch analysis, but does not see the overall land use plan that tries to maximise the ecological values in the landscape.

Company Responses:

- The timeline of several major steps during HCS assessment has been provided in Summary report (section 2.2). The detail of this timeline also has been mentioned in the various studies and documents provided to HCSA (HCV report, SIA report).

- We were considering landcover external to the concessions during landcover analysis. But, referred to the field verification, there was no field inventory on the external patch, therefore we did not analyze those external patch (see the HCS full report section 3.1.6 page 39 for the detail methodology).
- We have developed Conservation Development Plans, including integration of HCV, HCS and PM Maps. This integration plan also considering of the ecological and social values. Detail of the information can be found on section 5 in the HCS full report.

Final Reviewers Recommendation:

- The timeline for the various reports has been provided, but no information about plantation development has been provided in the timeline. For example: acquisition of the HGU, dates of land clearing and planting.
- The external patches have now been mapped so this recommendation has been fulfilled.
- There is no section 5 in the HCS full report.

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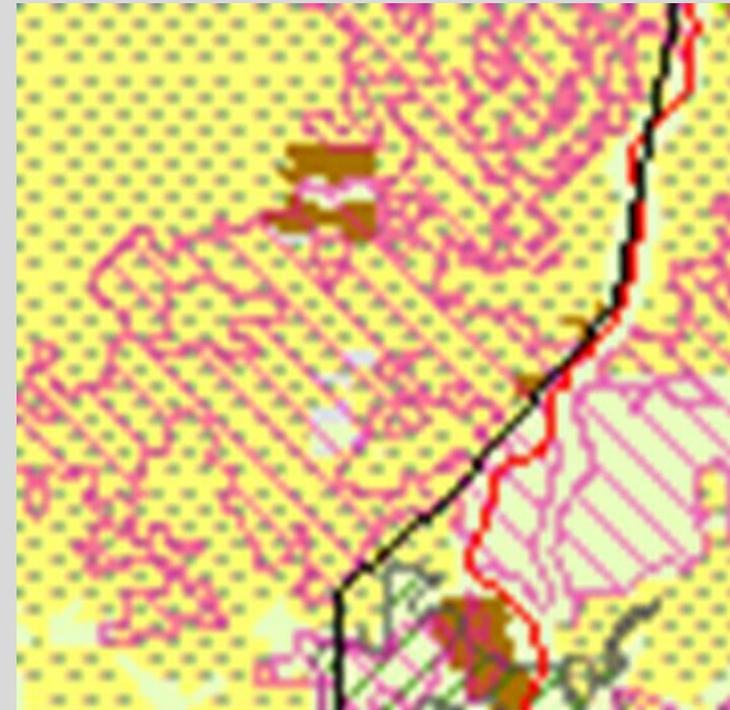
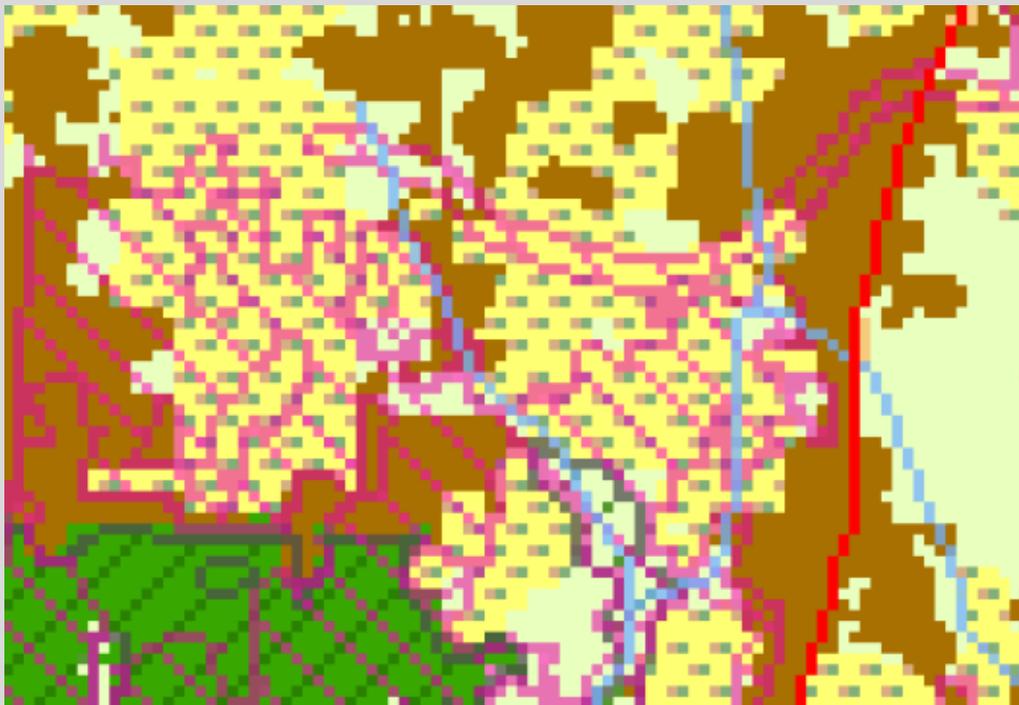
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- The reviewer looks at fig 19. Unfortunately, it needs a lot more explanation as there are many areas mapped as HCS that are now oil palm. It appears the company has converted these HCS areas to oil palm. The text explains the community has encroached some areas.....“There are 1,418 ha that were previously identified as HCV area and/or HCS forest that are now either mixed gardens, rubber plantations or mining sites indicating encroachment and land-use change.” But the community haven’t planted oil palm (as indicated in the two maps below).



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

Finding:

The assessment team appeared to have adequate skills and experience to undertake the HCS survey and report.

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?

Finding:

There needs to be an integration of the HCS with HCV as well as PM. The assessor has highlighted there are problems with the PM, where the community is wanting HCV / HCS areas for their own gardens.

Reviewers Recommendation:

Another review of HCS is required which takes into account the PM results.

The management and monitoring plan, in its current form needs to have a lot more detail added. For example, the assessor mentions areas for rehabilitation. A map highlighting the areas for rehabilitation is necessary here.

Company Responses:

- We have developed Conservation Development Plans, including integration of HCV, HCS and PM Maps. This integration plan also considering of the ecological and social values. Detail of the information can be found on section 5 in the HCS full report.
- HCS Management and monitoring plans are out of scope of HCS assessment report.
- There is no M&M section in the assessment summary report template provided by HCSA.
- The M&M plan will be further developed with all stakeholders once the peer review process is cleared and the HCS report is approved.

Final Reviewers Recommendation:

There must be something wrong with the numbering because there is no section 5 in the full report. However, the reviewer has read through section 3.5 “Integrating HCS, HCV and PM.” Unfortunately, the explanation was very confusing for someone who hasn’t been involved in the work. e.g. “During PM, the communities indicated that 1,490 ha of HCV or HCS is now delineated as mixed gardens, rubber plantations, mining areas and open land (see table 10).” But the reviewer can’t get any of the numbers in table 10 to add up to 1490 ha so as to understand the assessor’s logic. The suggestion is that this section be rewritten.

Table 11 is a good discussion – it would be good to make a map showing areas A-H. Also make sure the table numbers refer to the correct table (e.g. “(this includes area types A, B, C, D and E from table 10).” It should be table 11.

Please see the detail of section 10.3 in the HCS summary report template – this requires details on M&M activities.

2. *Social Issues*

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

Finding:

HCV, HCS and PM study have been undertaken. Unfortunately, the PM was done after the HCV and HCS studies and the community wishes to develop many of the HCV and HCS areas.

The description of the community engagement is missing in this section (other than the three previously mentioned studies).

Reviewers Recommendation:

It would be worthwhile here to add a table of the timeline of major community engagement / FPIC steps that have been undertaken.

A report should be provided about the PM which details:

- methods
- participants
- findings
- outputs

Discuss next steps to resolve the mis-match between the 3 studies (HCV, HCS and PM).

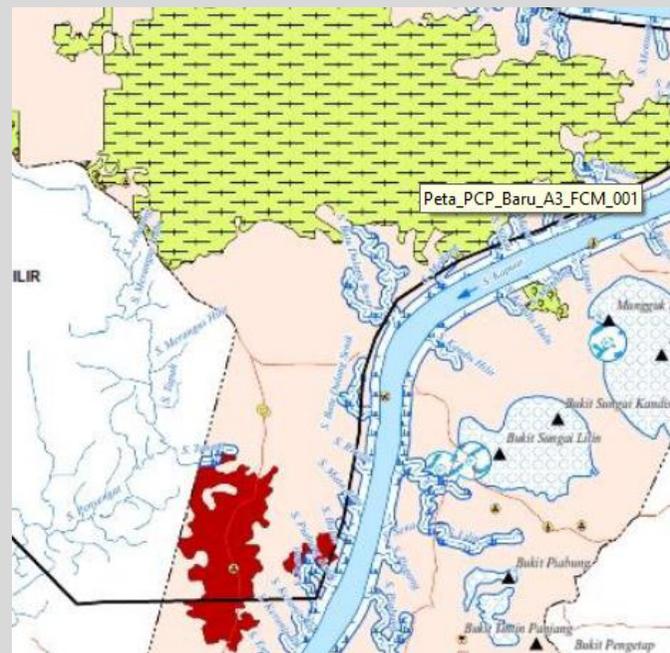
The last 3 paragraphs of section 3.1 are impossible to understand. The reviewer suggests that the HCV and HCS are overlaid with the PM to create a map and an associated table (area x land use) which shows where the areas of conflict between the plans are. Similarly, which areas are set aside for gardens etc.

Company Responses:

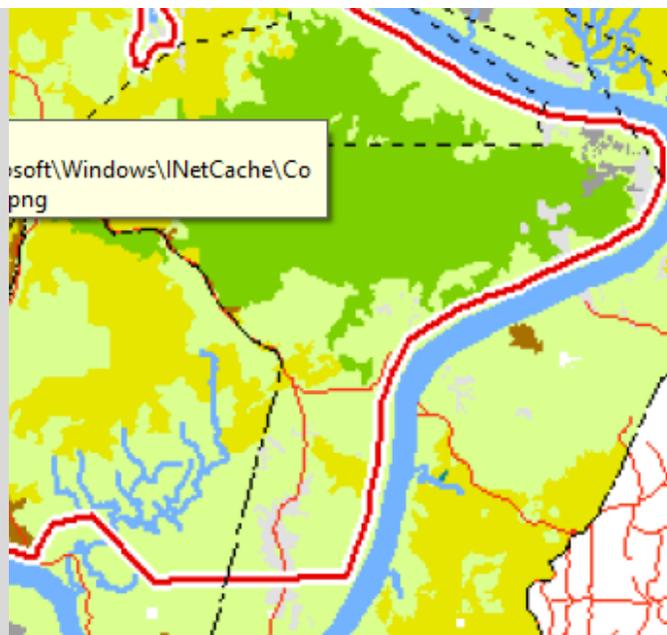
- The detail of FPIC timeline and community engagement process are presented in Participatory mapping report (please see SharePoint folder).
- HCV, HCS and PM studies have been integrated in PCP report and patch analysis process (please see SharePoint folder).
- Summaries of land use including HCV, HCS and peat areas which were proposed to be developed by communities are provided in full PCP report (please see SharePoint folder).

Final Reviewers Recommendation:

The PM process appears to be extremely thorough! However, the reviewer looked at the output of one of the reports - the natural resources as mapped by the PCP process (see gambar 33 on the Desa Baru) report and could not see a clear link with the PM map in the PCP report and the PM map in the HCS report.



Above: Detail from the PM map in the PCP report



Above: Detail from the PM map in the HCS report

Things like the shape of the community forest is different and the *rawan banjir* is not transferred into the HCS report PM map. It is suggested that the two output maps be consistent, or it should be explained how the PM map is derived from the map in the PCP report.

The reviewer looked through the Desa Baru PCP report and couldn't find mapping of HCS or HCV areas overlaid with the PM. Can the company give an exact location of this data.

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

Finding:

It doesn't appear that a land tenure assessment has been done.

Reviewers Recommendation:

It would be worthwhile to write a description of land tenure in the area. This could include:

- categories of land ownership in the area (individual / communal)
- how ownership is determined (through land certificates / customary)
- how land is purchase / sold / inherited

Company Responses:

Please see SIA report (page 25) and Participatory Mapping (PM) report (page 14).

Final Reviewers Recommendation:

There is a description of land ownership in the SIA report.

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:

A PM land use map is presented (Fig 2) however the reviewer is unsure whether this map is a "as is" map or a "to be" map. It seems to integrate elements of both because some categories look like current land use, whilst other categories (e.g. "areas the community wish to conserve") seem to embody a plan for the future.

Currently there is no mention of including of the minimum requirement of 0.5 ha / person.

Reviewers Recommendation:

Two PM maps need to be presented (1) an “as is” map showing current land use and (2) a “to be” map which shows how the PM would be implemented post development. In the “to be” map an analysis should be presented which shows the area for future gardens, ensuring it fulfils the requirements for 0.5 ha / person.

Company Responses:

- The “as is” map is presented in PM Map (see PM full report), and “to be” map is presented in PCP map (please see full report of Participation Conservation Planning).
- The 0.5 Ha requirement is presented in PCP report (page 24) and SCIA report (page 19) regarding food security which integrate between access and availability to land and product.

Final Reviewers Recommendation:

There are 4 different desa that overlap with the concession – so the reviewer had to go to 4 different reports to get the appropriate data. For this reason, integrated “as-is” and integrated “to be” maps should be added to the summary report.

Regarding the test as to whether there is sufficient agricultural land available for food security. The reviewer found this section in the PCP report:

4.2.3 KAWASAN BUDIDAYA

Hasil *desk study* dan *focus group discussion* oleh masyarakat menunjukkan bahwa masyarakat sepakat untuk merencanakan kawasan budidaya di Desa Baru seluas 3.724,27 Ha atau 55,81 % dari total luas Desa Baru, dengan fungsi masing-masing kawasan budidaya seperti diuraikan di bawah ini:

4.2.3.1 Kawasan tanaman tahunan dan perkebunan

This states the total area of agricultural land, but no information is provided about population here. There is population data provided in the SCIA reports. The reviewer suggests providing a table in the following format in the summary report to demonstrate the food security requirement is met in the pre and post development scenario.

Desa Name	Population	Area required to meet 0.5 ha/person requirement	Area of Agricultural Land which is owned by the community (pre development)	Area of Agricultural Land which is owned by the community (post development)

This should be supported by the overall as is and to be land use maps for the whole area of the desa that overlap with the concession.

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:

In this case the HCS has been undertaken after the initial development has taken place.

There were records of the outcomes of community engagement presented in the form of participatory maps. However, there was no information presented about the methods of community engagement.

The major question the reviewer has, is how land was purchased in this area and how kemitraan was organised? What was offered to the community in terms of were they offered the chance to (1) sell their land, (2) enclave it or (3) join a plasma scheme?

Reviewers Recommendation:

As a minor note on maps such as Fig 2 in the summary report all the villages should be mapped. Penai, Perigi and Baru could not be found on the maps. So it makes the discussion hard to follow.

There needs to be a summary of the company's FPIC procedures which date back to the time that this concession was first developed (2015) so that it can be seen how the company approached the community and how the community organised themselves.

This should state:

- what was the offer made to the community
- how did the community organise themselves with respect to land purchases (i.e. did the kepala desa assist with the land purchase process).
- how was the land valued.

Company Responses:

- The map has been revised to show Desa Penai, Desa Perigi and Desa Baru.
- The HCS approach were conducted through PM and PCP process which explain community engagement processes.
- Land valuation and purchase processes are not relevant to HCS assessment. Land acquisition processes followed New Planting Procedure.

Final Reviewers Recommendation:

The revised map is good but would be further improved by showing the village boundaries.

It is stated that "Land valuation and purchase processes are not relevant to HCS assessment." The reviewer considers the purchase process to be relevant to HCS approach under the requirement of FPIC and community engagement. This ensures that the ownership of the land is fairly mapped out (in consultation with all stakeholders) and payment is made to the true owner of the land and not a false claimant. See the capture from the integrated assessment manual below.

3. Demonstrated legal right over or permission to explore Area of Interest	<ul style="list-style-type: none"> • Land tenure assessment (see more detail below) • Title, lease, planning permit¹², concession agreement, exploration permit, permission from current land owners, etc. • Agreement or MOU from the landowners that give permission to conduct the assessments that will inform development potential on their land
4. FPIC process has been	<ul style="list-style-type: none"> • Timeline of FPIC process initiated by the Organisation

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:

No information is presented here about the community’s views. Although it appears that the community’s views might have been taken into account in the PM. The PM seems to have been undertaken after the initial oil palm development took place.

Furthermore, the report highlights a lack of community engagement early on, where areas of rubber plantations and mixed gardens were thought to be abandoned lands (pg 44 HCS report).

Reviewers Recommendation:

An individual section on FPIC should be added to the HCS report. In this, summary information should be provided about:

- GAR’s FPIC SOP. If this SOP does not include a recommendation to the community that they seek independent legal advice; then the SOP should be amended. Clearly GAR cannot assist with legal advice to the community, as this would make a conflict of interest for the lawyers.
- Specific reference should be made to meetings with the communities and a summary of what was presented, follow-ups required and their concerns.

- Description of the land purchase process. This should include different situations e.g. when the landowner does / does not have an SKT.

Company Responses:

- The detail of FPIC processes are explained in PCP and PM reports (share point folder).
- Land valuation and purchase processes are not relevant to HCS assessment. Land acquisition processes followed New Planting Procedure.

Final Reviewers Recommendation:

The PCP report seems very thorough and details community engagement.

The land purchase process information is required so that it can be shown that the community obtained legal title to each portion of land prior to purchase. In doing this, the company ensured that it was purchasing the land off the correct owner. This is part of the FPIC process.

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

Finding:

It is rather hard to make any recommendations here as very little information has been provided. Nevertheless, GAR has indicated that they have realised that a lot of the PM has shown up shortfalls in the HCV and HCS process. Additionally, the PM should be done before the HCV and HCS studies.

Reviewers Recommendation:

Add sections to the HCS report on FPIC and community engagement. These should also reference the PM report (recommended in 2.1 above).

Company Responses:

The detail of FPIC and community engagement process is explained in PCP and PM reports (share point folder).

Final Reviewers Recommendation:

Whilst there is information in the PCP reports on FPIC, it is only the summary report that will be available on the internet. For this reason, it is recommended to put a description of the FPIC process in the summary report. Currently only the outcomes are mentioned.

3. *Ecological and Conservation Values*

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

Finding:

The information provided in the summary report was far too summarised.

Reviewers Recommendation:

At a minimum the summary should include an HCV map, a table of the areas x HCV, a couple of sentences discussing each HCV, the major threats and management and monitoring required.

Company Responses:

- The details of HCV identification are reported in HCV assessment full report.
- Summary of HCV areas are reported in HCV report (please see page 53, table 33).

Final Reviewers Recommendation:

The reviewer is “suggesting” that the company add more information to the summary report to aid the understanding (the other reports will not be available to the general public).

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

Finding:

The site description requires the following information “Status of project or development (e.g. forestry, agriculture – specify if greenfield – new expansion, brownfield – expansion or rehabilitation of agricultural land, operational farm, concession or plantation), start date of production activities, extent and dates of clearing.” This information needs to be added to the site description.

The format does not follow that of the ALS, with the social discussion in the GAR HCV report following the National Context.

The social context section is reasonable, although there is no discussion about the impact of the oil palm industry on the society. There is no information provided as to whether OP is well established in the area or a relative newcomer.

The assessor finds that HCV 1.1 is absent in the assessment area. However, riparian zones along rivers and buffers around surface springs are designated as Local Protection Areas (Kawasan Perlindungan Setempat) under Indonesian law (Keputusan Presiden No 32/1990 and PP No 38/2011). This law requires the maintenance of buffer zones of at least 100m on both sides of ‘large’ rivers, and 50m on ‘small’ rivers, as well as a buffer of 200m radius around surface springs. No minimum size of a river or spring requiring a buffer is stipulated in the law. This means that HCV 1.1 will be present as there are many rivers mapped within the concession.

In the mapping of HCV 1.2 it appears that only the location of CR vegetation species and the presence of orangutans was considered. There was no consideration of birds or mammals other than orangutans.

All the management and monitoring recommendations seem to make sense. Though they could be applied to almost any OP concession in Indonesia in their current form. It lacks information, for example, as to whether GAR has paid for the land that constitutes the HCV areas. If not, how will it protect or stop logging on land that it does not own?

Reviewers Recommendation:

Add the information to the site description as noted.

The Wider Landscape Context Section of the report is quite good. Some things that would improve this section is a map of peat land in the area and a map of the protected areas nearby. Particularly the proximity of TN Danau Sentarum. Similarly the WLC section lacks a landcover map, this is essential to understanding the logic of the mapping of the boundaries of the various HCVs.

It would also benefit from a proper description of the land systems in and around the assessment area as this is a key to understanding the context.

A map of the current landcover over the wider landscape (e.g. Hansen) would be worthwhile also.

Add information within the social context about the impact of oil palm on the society. Its acceptance or otherwise and whether it is a major industry in the area.

Reconsider the presence of HCV 1.1.

In the mapping of HCV 1.2 the presence of other CR mammals and birds (at a minimum should be taken into account).

There are detailed species lists in the annex, but a summary of the threatened species that was found needs to be brought up to the HCV 1.3 section.

With the mapping of HCV 2.2. there should be discussion as to why the ecotone between mineral and peat soil is not considered an HCV. There are many species mentioned in table 14 (HCV2.3) that are not mentioned in HCV1.3. The information provided needs to be made consistent.

The analytical approach is used for identification of HCV 3, but without a mapping of the location of the land system and a land cover map it is impossible to assess the justification provided. A map of land systems and the land cover are necessary. Furthermore, it seems very strange that a lake would be considered HCV3.

For HCV 4.1 the assessor should state the source of the buffer widths applied.

Company Responses:

- The site description is mentioned in section 1.3 of the HCV summary report and also in the HCV report.
- Peatland map is provided in the HCV full report (Page 41, figure 16).
- Land system in the landscape context are provided in the HCV report (Section II.3.5, page 8).
- The HCV assessment process used MoEF 1990 – 2015 landcover map as reference for landcover condition in wider landscape.
- The social context about the impact of oil palm to the communities are explained in SIA report and Conservation Social Impact Assessment Report (please see SharePoint folder).
- In the 2008 HCV Toolkit, HCV 1.1 descriptions include national or international protected area. All conservation areas which recognized nationally and internationally and served as wildlife habitats and conservation areas are considered as HCV 1.1. TFT consider conservation area described on the toolkit as Wildlife Sanctuary, National Park, Natural Reserves, Important Bird Area (IBA), and other area that important for wildlife habitat. Those conservation area are delineated by National government or International organization. In Indonesia, “Conservation Area” is described and delineated by Ministry of Environment and Forestry. Based on Keppres 32/1990 rivers are not categorized as the “Conservation Area” but “Local Protected Area”, therefore it is not categorized as HCV 1.1.
- TFT HCV identification only found CR species for vegetation, there was no CR for mammals and birds.
- All the HCV comments have to be aligned with HCV review from ALS.

Final Reviewers Recommendation:

No updates have been made to the report based on the reviewer's recommendations.

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

Finding:

There was a discussion (in the summary report) of the results of the RBA and the pre RBA but no information was provided about the actual questions that were analysed in the pre-RBA (e.g. Does the patch contain stream(s) of width greater than 2m?) or the RBA (e.g. presence of threatened species). Nor are any maps presented that show the patches that require pre-RBA and RBA. There is mention of Figure 13 – this is the incorrect link (copy paste error from the HCS report).

There is mention of the pre RBA “rich mineral swamp forest, likely to be high in biodiversity and should therefore be conserved”, this does not follow the initial questions in the toolkit. The reviewer then read the full HCS report and it appears that the pre-RBA and RBA methodology were followed. It is just that it was not properly described in the summary report.

Reviewers Recommendation:

The methodology for the pre-RBA and RBA needs to follow the toolkit, this needs to be properly described in the summary report.

The map present in Fig 13 only shows the outcome of the HCS forest and doesn't show the patches that were required to have a pre RBA. All these patches need to be clearly shown on the map and the reader taken through the pre-RBA decision tree in the toolkit.

Company Responses:

- Methodology of the pre-RBA and RBA are in accordance with HCS toolkit - it is provided on the detail of Pre-RBA report in SharePoint folder (see "Others" folder).
- There is no Pre-RBA/RBA section in HCS assessment summary report template provided by HCSA.
- Please see HCS indicative map in HCS main report (page 37, figure 12).

Final Reviewers Recommendation:

The company feels this has been covered adequately. Although the reviewer still believes that stepping the reader through the RBA process would aid transparency.

There is a section on Pre-RBA/RBA in the template – please see section 9.2 of the template.

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 5 management and monitoring activities listed. These could be applied to any OP concession in Indonesia.

There doesn't appear to be any mention of community involvement in these activities nor is there mention of HCS areas outside the concession.

Reviewers Recommendation:

The M&M activities need to be made highly specific so that a plantation manager can read them and get specific instructions.

Furthermore, there are a lot issues that are not explained such as the communities' commitment to conserving areas from encroachment that GAR hasn't purchased off them.

There is no M&M section in the HCS report – this is an important omission. An M&M section needs to be added to the HCS report.

Company Responses:

- There is no M&M section in the assessment summary report template provided by HCSA Secretariat.
- The M&M plan will be further developed with all stakeholders once the peer review process is cleared and the HCS report is approved.

Final Reviewers Recommendation:

Please see section 10.3 of the summary report which requires M&M.

4. *Image Analysis*

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

Finding:

The AOI included the concession plus a 1 km buffer around the concession. This appears to be the correct method.

Reviewers Recommendation:

Even though the description mentions a 1 km buffer, no buffer areas are shown on the maps. These need to be added and taken into account in the patch analysis.

Company Responses:

AOI map which include 1 km buffer is shown in HCS main report (page 39, figure no 14).

Reviewer's Response

Recommendations taken into account.

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

Finding:

The images used were all landsat, which would not be adequate with version 2 of the toolkit. However, given that this assessment was done using version 1, landsat is permissible. The assessor mention that they had to stitch together 3 images of different dates to get a single cloud free image. This approach appears adequate.

Reviewers Recommendation:

No recommendation.

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

Finding:

Vegetation classification was done using manual digitisation. This is adequate given that version 1 of the toolkit was used.

Reviewers Recommendation:

There is no mention of in-field verification of the landcover map in the summary report. This is an important step and should be discussed.

Company Responses:

- There is no section about in-field verification of the land cover map in the summary report template provided by HCSA Secretariat.
- The detail of in-field verification processes is explained in HCS main report (page 34, figure 12).

Final Reviewers Recommendation:

From fig 12 (pasted below) the reviewer cannot see any documentation of the infield verification. What is required is documentation of the method of infield verification, not just the outcome.

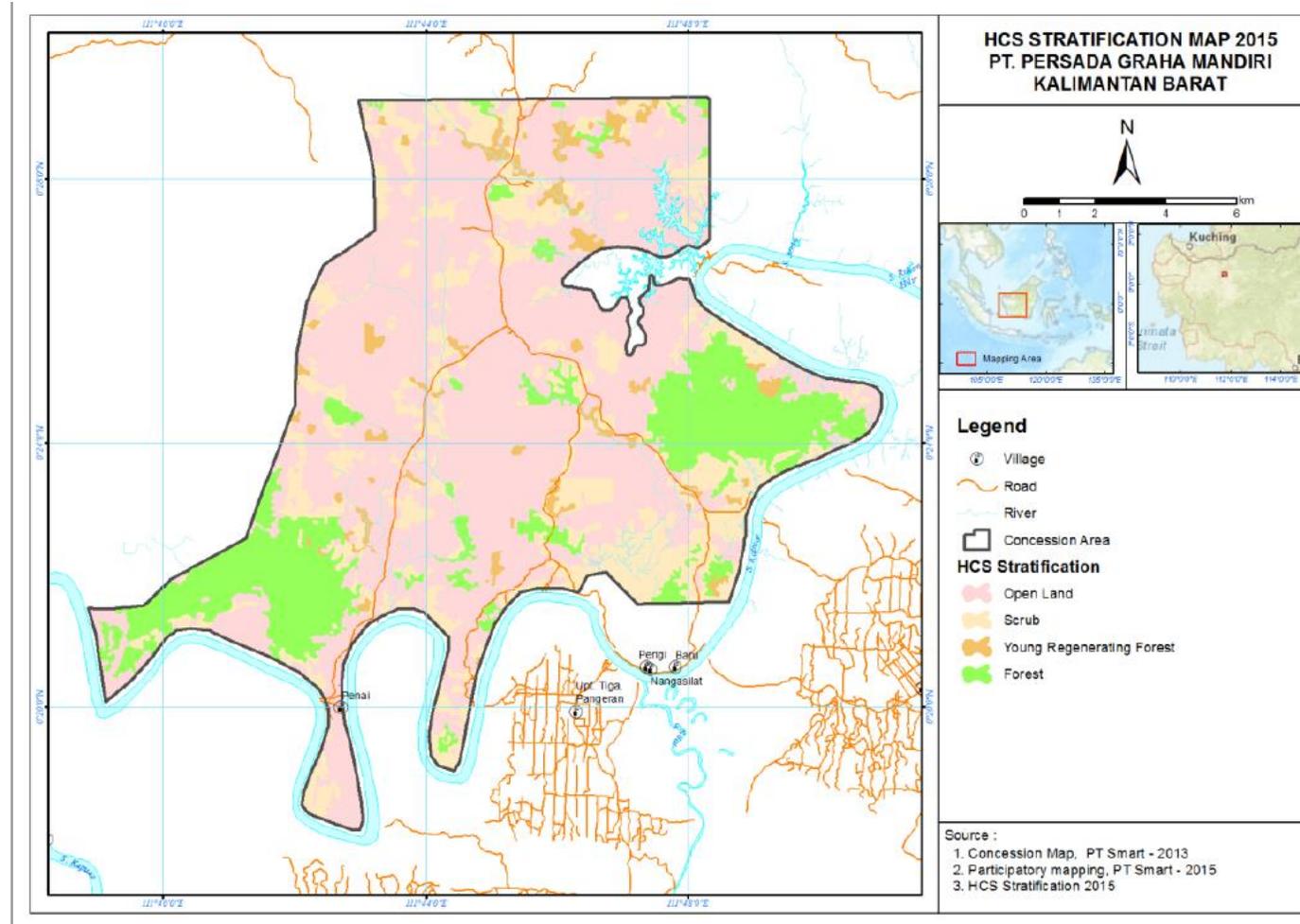


Figure 12 Updated land cover strata map from sample plots

5. *Forest Inventory*

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

Finding:

The allocation of the number of plots, locating and set up of the plots appears to follow the toolkit.

Reviewers Recommendation:

No recommendation.

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

Finding:

The table in section 7.3 lists everyone's roles in the assessments but not their qualifications.

Reviewers Recommendation:

The qualifications and relevant experience of each of the team members needs to be added.

Company Responses:

- Forest inventory team qualification has been updated in the HCS summary report (section 7.3).

Final Reviewers Recommendation:

The updates appear adequate.

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

Finding:

The assessor used two equations (1) Basuki (2009) for the mineral soil areas and (2) Manuri (2014) for the peat land areas. The reviewer is not familiar with either of these equations. However, the carbon stocks that resulted are in line with what the reviewer would expect in the various forest types. Both the papers associated with these models are referenced. The reviewer notes that the only parameter used is dbh (not height or density).

Reviewers Recommendation:

No recommendation.

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

Finding:

Currently the assessor provided plot sheets for all the HCS plots.

Reviewers Recommendation:

The assessor should provide a spreadsheet (or database) with all the plot data in a single sheet. This should have all the carbon calculations and be reconciled through to the carbon stocks that are provided in table 6 of the summary report.

Company Responses:

- The plot database has been submitted to share point folder (please see Folder_05 Complete forest plot data).

Final Reviewers Recommendation:

The database is provided, but there are no calculations provided to show how table 6 is derived.

6. Land use planning

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

Finding:

The summary report mentions updates to the landcover map but it is not specific about the results.

Reviewers Recommendation:

A discussion needs to be added about areas that changed landcover classes as a result of the field survey. This should be specific about the reasons for changing the classification of the areas. Particularly referring to the assessor's definitions of scrub, YRF and LDF and the species that are typically present. The initial land cover map and the final land cover map should be presented side by side for review.

Company Responses:

- Stratification processes methodology and final map are explained in HCS main report (page 34).
- Initial stratification map is shown in HCS main report (page 28).
- Generally, the final map is identical with the initial stratification map. Summary of comparison result which explained the different between stratification and final map is explained in the HCS main report (page 28, page 34, table 6 and figure 7).

Final Reviewers Recommendation:

The initial landcover (top) and final landcover (bottom) – it would be good to have a bit of discussion about why LDF was split into LDF and MDF in the final analysis and why it was presented in the map as “forest?”

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	Water Body
	Site Permit of PT PGM

Land Cover	Area	%
LDF	3335.04	17.19
YRF	664.18	3.42
S	3949.10	20.35
OL	11454.40	59.04
Total	19402.72	100.00

Tabel 6 Update potential of HCS and Non HCS area

Land cover strata	Class	Updated area – 2015 (Ha)
Potential HCS	HDF	-
	MDF	484,7
	LDF	2.848,25
	YRF	663,75
Non HCS	S	3.946,64
	OL	11.447,21
Total area mapped		19.390,6

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

Finding:

PM was only done after the HCV and HCS. This has highlighted problems with communities wanting to develop HCV or HCS areas.

Reviewers Recommendation:

Another iteration of community consultation will be required where the HCS and HCV areas are shown to the community and these are reworked together to make a plan the area that meets the requirements of the community.

Company Responses:

All the HCV, HCS and PM were fully consulted with the community through PCP consultation public. Detail of the information was provided on the PCP report (please see SharePoint folder).

Final Reviewers Recommendation:

Again the output of this should be put into the summary report so that it is available to the general public.

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

Finding:

From table 6 patch no. 12 was selected (33.29 ha with core 1.46 ha). This area is YRF. It should require a pre RBA at step 9 because it is a LPP with core area <10 ha. But there is no mention of the pre-RBA outcome. Then it is marked for develop. But in section 3.1.5 of the HCS report

it was stated “As can be seen in Table 6, there was only one patch (patch 29 of 42.42 ha) that required Pre-RBA.” It appears the toolkit has been incorrectly applied because all the patches with core area < 10 ha and low connectivity require a pre-RBA which was not done.

Reviewers Recommendation:

The low priority patches be reviewed against the HCS decision tree again.

Company Responses:

- PT PGM concession is located in “Kapas Tengah” landscape, the detail of landscape landcover analysis is shown in HCV report (page 6, figure 2) which based on analysis the forest land cover is >30%.
- Pre-RBA/RBA were not done in all low priority patches because the areas are located in Medium Forest Cover Landscape (30 – 80% forest) where based on HCS Toolkit, low priority patches could be classified as “Indicative Developed” patches.

Final Reviewers Recommendation:

The company response conflicts with the HCS report – see below.

3.1.4. Patch Analysis Decision Tree results

With a natural forest cover of less than 30%, the PT PGM concession is considered to be of ‘low forest cover’ (based on HCS Approach Toolkit Ver.1 definitions). Thus, the pathway through the patch analysis decision tree adds more weight to the conservation of medium and low priority HCS patches.

- 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:

All that is written in section 10.1 is one word, “no”. The reviewer assumes there was no final verification of the plan. Section 10.2 only consists of a map with no commentary.

Reviewers Recommendation:

There is no peat land map in the report. This an essential piece of information that needs to be added.

Currently the only discussion about the map is a discussion of how the areas are divided up into various land use categories. There is no discussion about trying to create corridors that connect larger forest areas (both within and outside the concession). In fact, no information is provided about forest areas outside the concession. Currently the final HCS map, presented in section 10.2, seems to be a series of unconnected patches. Information is therefore required about whether there is any possibility to connect them to other areas in the landscape. Indeed there is no information provided about any corridors that might still exist in the larger landscape.

As a general comment the way that the maps are presented looks very tidy but they are too small. The assessor should review the format of the map, maybe doing away with the right hand column and putting all the legend under the map.

Company Responses:

Peat land map are provided in the HCV report (page 41, figure 16).

Final Reviewers Recommendation:

The peat land map, which is an essential part of the HCS study, should be put into the Summary report. The HCV report will not be available on the HCS website to the community.

There is still no discussion as to why, for example, there is no effort to connect forest areas to the river in order to make corridors in the landscape. This is the purpose of the “give and take” mechanism.