HCV-HCSA Assessment Manual

Bibliographic Reference

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Acknowledgements
We would like to acknowledge the editorial and technical feedback from Nev Kemp, Daneetha Muniandy and Adrian Choo.

Funding for this document was provided by
HCV Network and the HCSA Executive Committee (Partnerships for Forests)
HCV-HCSA Assessment Manual

Change History

<table>
<thead>
<tr>
<th>Version number</th>
<th>Effective date</th>
<th>Description of changes</th>
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<tbody>
<tr>
<td>ALS_02_I</td>
<td>26/04/2023</td>
<td>A summary of the changes from previous version can be found <a href="#">here</a>. The comments received during the public consultation of the draft version of this document, and their responses can be found <a href="#">here</a>.</td>
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Associated Documentation

<table>
<thead>
<tr>
<th>Document Reference</th>
<th>Document Type</th>
<th>Document Name &amp; Reference</th>
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<tbody>
<tr>
<td>ALS_02_J</td>
<td>B</td>
<td>HCV-HCSA Assessment Report Template</td>
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The update process

This document was updated following the “Procedure for development and update of the Assessor Licensing Scheme (ALS) controlled documents”.

A draft developed by the High Conservation Value Network (HCVN) Secretariat staff was shared for consultation with the HCSA Steering Group, ALS Licensed Assessors, Quality Panel members, training providers, and external partners.

The final version has been approved by the HCSA Executive Committee and the HCVN Management Committee.

Improvements that could not be incorporated in this version will be taken into consideration for the next update.

Use of this manual will be required for all assessments contracted after its publication in English, Bahasa Indonesia, and Spanish.

Reports for assessments contracted before publication of this manual may follow the new manual; contact qualitymanager@hcvnetwork.org to confirm whether this is possible.

Reports based on the old manual and template can only be submitted for evaluation until the end of 2023.
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<th>Full Form</th>
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<tr>
<td>AA</td>
<td>Assessment area</td>
</tr>
<tr>
<td>AGB</td>
<td>Above ground biomass</td>
</tr>
<tr>
<td>ALS</td>
<td>HCV Assessor Licensing Scheme</td>
</tr>
<tr>
<td>AOI</td>
<td>Area of Interest</td>
</tr>
<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species of Wild Fauna and Flora</td>
</tr>
<tr>
<td>COI</td>
<td>Conflict of Interest</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>FPIC</td>
<td>Free Prior and Informed Consent</td>
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<tr>
<td>FSC</td>
<td>Forest Stewardship Council</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System</td>
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<tr>
<td>HCS</td>
<td>High Carbon Stock</td>
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<td>HCSA</td>
<td>High Carbon Stock Approach</td>
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<td>HCV</td>
<td>High Conservation Value</td>
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<tr>
<td>HCVN</td>
<td>High Conservation Value Network</td>
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<tr>
<td>HPP</td>
<td>High Priority Patch</td>
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<tr>
<td>IBA</td>
<td>Important Bird and Biodiversity Areas</td>
</tr>
<tr>
<td>IFL</td>
<td>Intact Forest Landscapes</td>
</tr>
<tr>
<td>ICLUP</td>
<td>Integrated Conservation and Land Use Plan</td>
</tr>
<tr>
<td>IUCN</td>
<td>International Union for Conservation of Nature</td>
</tr>
<tr>
<td>KBA</td>
<td>Key Biodiversity Area</td>
</tr>
<tr>
<td>LiDAR</td>
<td>Light Detection and Ranging (a remote sensing method)</td>
</tr>
<tr>
<td>LPP</td>
<td>Low Priority Patch</td>
</tr>
<tr>
<td>LT&amp;U</td>
<td>Land Tenure and Use (Study)</td>
</tr>
<tr>
<td>M&amp;M</td>
<td>Management and Monitoring Recommendations</td>
</tr>
<tr>
<td>MPP</td>
<td>Medium Priority Patch</td>
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<tr>
<td>MU</td>
<td>Management Unit</td>
</tr>
<tr>
<td>NDA</td>
<td>Non-disclosure agreement</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
</tr>
<tr>
<td>NDPE</td>
<td>No Deforestation, No Peat, No Exploitation’</td>
</tr>
<tr>
<td>NTFP</td>
<td>Non-timber forest products</td>
</tr>
<tr>
<td>SBS</td>
<td>Social Background Study</td>
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<tr>
<td>SEIA</td>
<td>Social and Environmental Impact Assessment</td>
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<tr>
<td>SIA</td>
<td>Social Impact Assessment</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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Glossary

Affected communities: indigenous and local communities and inhabitants\(^1\) with legal or customary ownership and/or usage rights over any of the land and resources that may be affected directly or indirectly by the potential development.

Area of Interest (AOI): the assessment area(s) + the wider landscape (see section “Propose a preliminary definition of the area of interest”). Note that environmental features inform the “environmental AOI”, while social features (such as affected community boundaries, when applicable) inform the “social AOI”.

Assessment Area (AA): the area within the Organisation’s management unit(s) – MUs that has been included in the assessment. Often these are identical, however, there are situations where the assessment area only covers the MU(s) partially, for example when a portion of the MU(s) is excluded because consent to conduct the HCV-HCS assessment was not obtained by the Organisation from the relevant affected communities.

Assessor: (also referred to as “lead assessor”) an expert that meets requirements for leading HCV-HCSA assessments; leads in engagement with the Organisation, coordinates the assessment’s methodological design, participates in the full assessment, leads the analysis of results and participates in consultations. The assessor is responsible for submitting the report to HCVN for quality assurance and for the quality of the report.

Assessment team members: experts with different roles and responsibilities throughout the assessment process, including context analysis, methodological design, data collection and analysis, engagement and consultations, and writing of some sections of the report.

Community consultation: a fair, representative and non-discriminatory two-way communication and information sharing process involving active participation and joint decision-making by the affected communities and all their subgroups, where the assessment team shares information about the assessment and assessment results in an adequate manner (through appropriate language, clarity and location) to gather information for identification of values and needs, and to request feedback and validate the results. Informing or passing of information from assessment team to community member(s) does not constitute community consultation.

Community subgroups: defined by their gender, age, ethnicity, origin, economic status or activities, organisation and power. Community subgroups need to be engaged in assessments as knowledge, basic needs, cultural values and choice of representatives may differ.

Consent: the right of the community and community subgroups to agree or not agree to the assessment before it begins and throughout its implementation. It is the result of a collective decision made by the affected communities and reached through an accepted and/or customary decision-making process.

Directly affected communities: all communities that are likely to be affected directly and significantly by the potential development, i.e. those with land holdings and usage rights within the assessment area. Directly affected communities have the right to give or withhold its Free Prior and Informed Consent (FPIC), and to organise themselves on their own terms\(^2\). For the purpose of this manual, the scope of the consent should be limited to the conduct of the assessment.

Environmental and social safeguards\(^3\): “The term “Environmental and Social Safeguards (or Standards)” is used by development institutions, international treaties and agencies to refer to policies, standards and operational procedures designed to first identify and then try to avoid, mitigate and minimize adverse environmental and social impacts that may arise in the implementation of development projects. ESS also have a pro-active dimension to try to increase chances that development projects deliver better outcomes for people and the environment.”

FPIC: “…A collective human right of Indigenous Peoples and Local Communities (IP/LC) to give or withhold their consent prior to the commencement of any activity that may affect their rights, land, resources, territories, livelihoods, and food security. This right is exercised through representatives of their own choosing and in a manner consistent with their

\(^1\) This may include tenants, sharecroppers, farm workers and other companies with leases on the land, or those with legal or informal permits to access and use lands and natural resources.

\(^2\) Adapted from the Implementation Guide for the Social Requirements of the HCSA (2020).

\(^3\) From WWF: http://assets.worldwildlife.org/publications/844/files/original/SafeguardsonepagerFINAL.pdf
own customs, values, and norms.⁴. See Module 2 of the High Carbon Stock Approach (HCSA) Toolkit for a list of FPIC resources.

**HCS Forest:** Land cover categories with carbon stock classes within the HCSA threshold: High Density Forest (HDF), Medium Density Forest (MDF), Low Density Forest (LDF) and Young Regenerating Forest (YRF) which is identified by its carbon stock, species mix and quality, defined through the application of the HCSA Toolkit.

**HCS Forest Management Area:** Forest patches that have been identified to be protected and conserved through the HCS Forest Patch Analysis decision tree.

**HCV area:** the area where a high conservation value is found (i.e. the habitat for an RTE species, a threatened ecosystem, forest areas used for sustainable subsistence hunting, a sacred site, etc.).

**HCV management area:** the area needed to protect the identified HCVs. It includes the HCV area, but also may include additional areas (and can include already developed areas) where certain practices or procedures will be required to avoid impacting the HCVs. For example: plantation areas used as HCV1 species corridors; buffers surrounding RTE ecosystems (HCV3) and HCV4 related to water provision, or community access paths to continue visiting sacred sites (HCV6), etc. HCV management areas are designed and delineated on maps through consideration of HCV area location and current and potential threats to HCVs that need to be managed or mitigated.

**High risk to HCVs and/or HCS Forests:** when the scale of activities is large, the intensity of activities is high, and the probability of HCV and/or HCS Forest presence is high, or when at least some of the potentially present HCVs are especially vulnerable, then the risks to HCVs and/or HCS Forests are high.

**High Priority Patch:** A patch of HCS Forest with core area containing over 100 ha HCS Forest defined through the application of the HCSA Toolkit.

**Indirectly affected communities:** communities with land and use rights outside the **management unit** generally located towards the periphery of the Area of Interest but likely to be indirectly affected by the potential development, such as by possible longer-term changes to ecosystem services provision due to the water usage of the operation⁵.

**Information exchange:** a process taking place during the field assessment whereby assessors present in a clear and accessible manner the information about the assessment process and the summarised secondary data and field study results, while affected communities (and the subgroups within them) share information about their current and planned land and resource use and its importance to satisfy their basic needs.

**Integrated Conservation Land Use Plan (ICLUP):** An organisation’s map of its proposed conservation areas, development areas, community land use areas, including a full management and monitoring framework for land use and evidence of agreement with the local communities.

**Land conflicts/disputes:** unresolved disagreements about boundaries or about overlapping tenure/use rights in the area intended to be assessed.

**Low Priority Patch:** A HCS Forest patch with core area containing less than 10 ha HCS Forest defined through the application of the HCSA Toolkit.

**Management Unit(s):** a legally owned or delegated (by the landowner) and geographically identifiable area delineated for silviculture or agricultural purposes, allocated to the **organisation** commissioning the assessment.

**Medium Priority Patch:** A HCS Forest patch with core area containing between 10 ha and 100 ha HCS Forest defined through the application of the HCSA Toolkit.

**Organisation commissioning the assessment (Organisa-**

**Participatory Mapping:** a method for identifying and mapping indigenous and local community use, rights and ownership of land and natural resources, based on local knowledge and


⁵ Adapted from the Implementation Guide for the Social Requirements of the HCSA (2020)
that establishes local people as the key stakeholder group during mapping. In the HCV-HCSA assessments participatory mapping is always required when there are directly affected communities with rights within the assessment area. In such cases, participatory mapping is used for the identification of Social HCVs (4, 5 and 6), other current community land use (including, where applicable, swidden areas) and to inform the discussion of future land and resource needs (i.e. identification of areas for future livelihood needs). Participatory mapping results must be translated into Geographic Information System data layers so that the maps can be overlaid with other assessment results.

**Potential conservation area and potential development area:** the land uses recommended for the assessment area based on the assessment results (following the HCV and HCS approaches). This is not a decision on land use, but information to be considered by the Organisation and the affected communities (if applicable) when discussing and developing an ICLUP.

**Preliminary Participatory Mapping:** an exercise conducted by the Organisation’s social manager or team and the affected communities (with external expertise if necessary) to collect and document information on tenure and use patterns.

**Precautionary approach:** applying explicit and effective measures when there is a threat of severe or irreversible damage to the environment or a threat to human welfare, to prevent the damage and reduce the risks. These measures are applied even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of values are uncertain.

**Precautionary approach in HCV identification**: when there are reasonable indications that an HCV is present, the assessor must assume it is present, unless there is clear and credible evidence of its absence. The use of the precautionary approach is even more important in land conversion developments, which are likely to pose more severe threats to HCVs than developments with limited habitat disturbance/degradation/loss and no displacement of local peoples’ resource use.

**Preconditions verification:** rapid verification that the Organisation commissioning the assessment has legal rights/permission to assess the area, is committed to environmental and social safeguards and to a moratorium of land clearing/development until the Integrated Conservation and Land Use Plan (ICLUP) or equivalent has been completed, and that if there are affected communities, they have given their FPIC to the assessment process. It also includes verification that the Organisation has completed a Social Background Study and a Land Tenure and Use Study (including preliminary participatory mapping).

**Primary information:** resulting directly from the HCV-HCSA assessment activities. It forms the basis for High Conservation Value (HCV) identification, High Carbon Stock (HCS) forest classification and identification of local people’s lands.

**Potential development:** the project planned to be implemented in the assessment area.

**Scoping Study:** A mandatory, mostly field based activity, conducted prior to the full assessment that helps understanding the terrain and gaining detailed knowledge of the social and environmental context.

**Secondary information:** social, environmental, and geospatial data and resources that are credible (from recognised sources), robust (methodology available and sound), thematically relevant and recent and hence can be used to support the assessment design and analysis of findings. This includes information obtained from social and environmental experts in the country/region. Use of secondary information must follow the precautionary approach, particularly when there is insufficient or no primary data collected. Secondary information older than three years is required to be validated for quality. When available, the newest sources must be used.

**Stakeholders:** any individual or group with an interest, information, or authority relevant to the assessment area and/or the wider landscape.

**Wider landscape:** area surrounding the assessment area that is relevant to the social and/or environmental aspects of the assessment. The wider landscape plus the assessment area makes up the Area of interest of the assessment.

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6 See Precautionary Approach, FSC P&C Glossary V 5.0
7 See Common Guidance for the Identification of High Conservation Values, 2017, pg. 21

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8 “Detailed, recent and complete enough” (see Common Guidance 2017)
Introduction

Purpose and structure of the manual

This manual is the official technical reference document for HCV-HCSA assessments\(^9\) and assessment reporting.

It details the steps involved in an HCV-HCSA assessment and the HCVN quality assurance requirements for HCV-HCSA assessment reports. This Manual is intended for users of the HCV and HCS approaches conducting HCV-HCSA assessments\(^{10}\) (referred to as ‘assessors’ in this Manual).

This document has 2 parts:

Part 1 Conducting the Assessment: what the assessor is expected to do and what data the assessor must collect and document at each step.

Part 2 Reporting Requirements: what contents the assessor must include in the report and what should be considered in the analysis of the information collected.

What is an HCV-HCSA assessment

An HCV-HCSA assessment is a participatory process for identifying social and environmental values which need to be conserved in production landscapes. The process consists of gathering and analysing information collected through field surveys, satellite imagery interpretation, participatory mapping (when applicable), information exchange through interviews, focus groups, etc. (with affected communities, relevant experts, the Organisation and other interested stakeholders), review of credible secondary data and other methods. Whenever HCV-HCSA assessments are conducted in areas owned or used by affected indigenous and local communities, their free, prior and informed consent (FPIC) is required to conduct the assessment and they have the right to participate in the assessment activities including information exchange (through different methods), participatory mapping and the final consultation. In these cases, local people’s lands for current and future livelihoods are also identified.

Results from HCV-HCSA assessments conducted in high-risk scenarios using this manual must be submitted to the HCVN for desk-based quality assurance.

\(^9\) “Detailed, recent and complete enough” (see Common Guidance 2017)

\(^{10}\) Since November 2017 all HCSA assessments are required to be conducted as HCV-HCSA assessments. Exceptions to this are found on the HCSA website. HCV-only assessments follow the HCV assessment manual.
When should an HCV-HCSA assessment be conducted using this manual?

This manual must be used to conduct assessments in high-risk scenarios with likely presence of HCS Forest (as indicated by preliminary land cover mapping), with high probability of HCV presence, where potentially present HCVs may be particularly vulnerable and where existing conditions or potential developments pose a risk to HCVs, HCS Forests and/or local peoples’ lands.

When used in the context of certification, the requirements of the specific certification scheme determine when to conduct this type of assessment.

This manual can be used in any commodity context. However, it is primarily targeted at contexts where there is one large Organisation with rights to develop the land and where the area consists of fragmented (< 80% forest cover) tropical forests.

This Manual is intended for Management Unit(s) level assessments and may not be suitable for other contexts, such as smallholders and/or high forest cover landscape context, without further adaptation (unless the potential development will take place in a scenario of high risk to HCVs).

Whenever an assessment is conducted with the intention of submitting to the HCVN for quality assurance, the Manual must be used for the assessment and the report must follow the reporting requirements (see PART 2). Licensed assessors must submit all their HCV-HCSA reports to HCVN for quality assurance.

HCVN recommends this manual is used in combination with other required reference documents (Box 1).

Complementary documents

This manual is designed to be used in combination with other required reference documents (Box 1).

The assessment team is expected to read these documents in detail before embarking on the assessment. Current versions of all documents must be downloaded from the HCVN and the HCSA websites before starting an assessment.

HCVN recommends this manual is used in combination with other tools where applicable, such as the landscape level HCV Screening tool, the Forest Integrity Assessment tool and the Nature Positive Farming guidance.

Box 1: Reference documents

1. Required for assessments

Common Guidance for the identification of High Conservation Values (Common Guidance): This document provides an explanation of the six HCV categories and gives examples of useful secondary data sources, methods and possible HCVs. This document also lists and qualifies all the HCV attributes required to be assessed. The current version of the HCV definitions can be found on the HCVN website.

Common Guidance for HCV Management and Monitoring: This document provides guidance on field methods for HCV monitoring, threat identification and general management recommendations. It also provides guidance on principles of management and monitoring, and on how to plan and implement such activities. This document must be used when conducting the threat assessment and providing HCV management and monitoring recommendations.

HCS Approach Toolkit: The HCSA Toolkit is comprised of seven modules, including social requirements, forest stratification and HCS Forest Patch Analysis, with guidance and references provided on topics such as FPIC and participatory mapping. Note many of the Toolkit requirements are relevant to the Organisations commissioning the assessment, not to the assessment team.

11 Exceptions to this may apply depending on the specific requirements of voluntary sustainability standards. For example, independent smallholders with new plantings in areas considered of medium or high risk to HCVs are required by the RSPO to conduct an HCV-HCSA assessment using this manual.
HCSA Social Requirements Implementation Guidelines: Section 2 Assessment stage (particularly steps 2.3 and 2.5) and the Annex 3 on Participatory Mapping (assessment stage) are directly relevant to the HCV-HCSA assessments. Note many of the other requirements are relevant to the Organisations commissioning the assessment, not to the assessment team.

HCSA Advice Notes: Published on the HCSA website, these provide clarifications or interpretations of requirements in the HCSA Toolkit V2 and HCV-HCSA assessment manual to respond to technical queries that arise from the implementation of the HCSA methodology and the evaluation of HCSA and HCV-HCSA assessment reports.

2. Required for assessments and reporting (as long as consistent with above)

National Interpretations: Documents developed by multi-stakeholder collectives to interpret the general HCV definitions and adapt them to a national or regional context, allowing everyone to use the same framework – a key to enable standardised and cost-effective practices. Assessors may use a national interpretation as key reference to inform the HCV identification process when this document provides clearer guidance on how to interpret the global HCV definitions in a national or even sub-national context. For any HCV attributes that are not discussed in the national interpretation the assessors will need to revert to the Common Guidance.

3. Required for reporting
HCV-HCSA report template.

Note on alignment between Manual and References
Updates to the manual may not be simultaneous to those in key HCVN and HCSA references (above), which may take longer to be updated.

Manual updates reflect learning about assessing and reporting and are approved by the HCSA Executive Committee and the HCVN Management Committee. When discrepancies/inconsistencies are found between the references above and this manual, the assessment process and reporting must follow the requirements of the latest document.

Who can conduct an HCV-HCSA assessment?

HCV-HCSA assessments require the engagement of experienced professionals from social and environmental sciences with a good understanding of the HCV and HCS approaches. Ideally, they are familiar with the region where the assessment area is located, including practical knowledge of local languages (if applicable).

Currently the HCSA Executive Committee, HCVN and some certification schemes require specific qualifications for experts leading and/or participating in this type of assessment, but these may change over time. The latest requirements should always be verified on the websites of HCSA, HCVN and relevant certification schemes.

Assessor requirements valid at the time of this Manual update are:

- Assessment lead qualifications: must be an HCVN ALS licensed assessor (provisional or full licence).
- Assessment team qualifications: at least two members must be registered HCSA practitioners (including the lead assessor).
- Assessment team composition: at least one GIS and remote sensing expert, one social expert (including in relation to community facilitation and participatory mapping) and one environmental expert.
- Assessment team required profile:
  - Must be able to communicate appropriately (i.e., respectful of local cultures, using appropriate methods and language) and effectively with a range of stakeholders.
  - Must have a clear understanding of FPIC principles and how to use them during the assessment.
  - If the team includes interpreters, these must be recruited ensuring they are independent from the organization commissioning the assessment, are able to communicate appropriately (see above) and have received an introduction to FPIC so their work is aligned with its principles.
Assessment teams must meet these requirements; compliance is stated in a sworn declaration completed when submitting a report for quality assurance (see Part 2: Reporting).

Engaging and contracting with an Organisation

Conflict of interest

Assessors must identify any potential Conflict of Interest (COI) that may affect the conduct of an assessment. Assessors should refrain from conducting assessments where current and/or previous connections with the individuals and Organisations involved may cause a potential COI.

Examples of potential COI include:

- The assessor works for the Organisation and the assessment is conducted with an internal team.\(^\text{12}\)
- The assessor has produced the studies used as secondary data for the full assessment (Land Tenure and Use study, Social and Environmental Impact Assessment (SEIA), Social Impact Assessment (SIA), soil study, peat study) and that he will be expected to validate.\(^\text{13}\)
- The assessor may have a financial stake or personal interest in the project being assessed, such as having a close friend or family member that is part of the project being assessed.
- The assessor may have worked previously with the Organisation, which could influence the assessment process.
- The assessor may be affiliated with other organisation that could be interested in the outcomes of the assessment.

Whenever a potential COI has been identified, the assessor must take adequate measures to remove or manage the potential COI, ensuring the integrity of the assessment.

Since there are scenarios where potential COI may be unavoidable, the measures taken to manage the COI must be disclosed (see PART 2).

Exchanging information

At this stage, the assessor needs to evaluate the preparedness of the Organisation and some preconditions must be verified (in red below). Before signing a contract for an HCV-HCSA assessment the assessor and the Organisation must exchange information, including but not limited to:

- Information provided by the Organisation:\(^\text{14}\):
  - Location and type of potential development: this helps the assessor understand the scale, intensity and risk (to HCVs and HCS Forest), which must be considered when estimating the cost/level of effort needed in the scoping study and potential assessment.
  - Reason why the assessment is being commissioned: to validate the need for the assessment, the assessor must know who is requiring it, and with what specific clauses (for example cut-off dates for different types of assessments).
- **Precondition – Organisation’s legal right over or permission to assess the land intended for development:** key information to decide if an assessment can be conducted or not.
- **Precondition – potential impediments to initiate an assessment:** If the information gathered indicates the Organisation’s preparatory stage (processes and studies) is incomplete, the assessor shall not start the assessment unless and until these have been completed. Issues that will delay the start of

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\(^{12}\) For example, the RSPO’s New Planting Procedure allows the use of internal assessors when the potential new development area is below or equal to 500 ha.

\(^{13}\) In some regions licensed assessors may be the only experts available for conducting some or all these studies, and/or it may make sense some of these studies are conducted in a concurrent manner.

\(^{14}\) The Organisation may request the assessor signs a non-disclosure agreement (NDA) before sharing this information.
the assessment include: the Organisation has not secured rights/permission, there is recent or ongoing deforestation, FPIC initiation is incomplete or has not started, there are studies still pending (e.g. Social Background study, Land Tenure and Use study), and there is an indication of land conflict involving directly affected communities (unless these are excised from the assessment area).

- Information provided by the assessor:

  About HCV-HCSA assessments including:
  - The Organisation’s responsibility for the preparatory stage (before the commencement of the full assessment): So the Organisation is aware of steps to be completed before the assessment can begin.
  - The process and activities involved in an HCV-HCSA assessment: So the Organisation understands the assessment plan and the needs for coordination and logistic support.
  - Key principles for assessing and reporting: For example, FPIC, precautionary approach, independence from land use planning decisions, etc (refer to section below for the complete list). So the Organisation understands how the assessor will collect and analyse the data and accepts the findings and recommendations.
  - The Organisation’s responsibility for implementing HCS Forest and HCV management and monitoring activities based on the assessment results: So the Organisation is ready and committed to ensure the protection of HCVs and HCS Forests.

About HCVN quality assurance:
- Evaluation fees and penalties: So the Organisation knows the likely final cost of conducting the assessment and understands that causing delays/resubmissions will increase the costs.
- Evaluation timeline: So the Organisation is aware of deadlines and plans any processes depending on the publication of the assessment report accordingly. This may include informing other relevant parties (i.e., local communities / cooperatives / smallholders / out growers / certification scheme / buyers, etc).
- Invoicing and payments for evaluation fees is done by the licensed assessor (not by the Organisation). To avoid companies requesting to pay HCVN directly for quality assurance services.

- Organisation’s contact person for quality assurance: So HCVN can inform the Organisation of progress in the evaluation on a timely manner.
- Use of the HCVN website to monitor the status of report evaluations; So the Organisation can monitor progress in quality assurance process directly.

- Information about claims:
  - Claims by the Organisation can only refer to reports listed on the website and to their public status (ongoing evaluation, satisfactory, unsatisfactory, cancelled or withdrawn). So the Organisation does not make any claims that may be challenged by the public or contested by HCVN.

Signing a contract

Assessors and Organisations are advised to:
- Use one contract for the preparatory phase and scoping study and another contract for the full assessment and quality assurance. If this is not possible, then the contract should have a clause allowing the assessor to exit the contract after the scoping study if results show that a full assessment is not appropriate. That would be the case if the preparatory stage (processes and studies) is not complete or if conditions in the assessment area are in contradiction to information supplied by the Organisation (e.g., FPIC not properly initiated, consent not given for full assessment, ongoing land clearance, etc.). In such cases, the assessor shall not proceed to the assessment unless and until all steps have been completed and issues resolved.
- Include a clause about disagreements related to the assessment outcome, allowing for a) withdrawing the report from evaluation without penalty to the assessor, or b) paying in full for reports published as satisfactory (even if the Organisation disagrees with the outcome).
Conducting the Assessment

Part 1

The context for every HCV-HCSA assessment is different, and it will determine the order of activities, types of studies needed and number of field visits.
It is mandatory to follow the order of the three main phases of the assessment (pre-assessment, scoping study, full assessment), however within those phases, the order and timing of different activities is left to the discretion of the assessment team.

Ideally, social field work and participatory mapping should be completed prior to the environmental field work and data collection for a variety of important and logical reasons:

- Ensuring affected communities (if applicable) have had the opportunity to gain an understanding of the assessment (purpose and activities, for both social and environmental aspects)
- Engaging affected communities’ freely self-appointed representatives in planning and ideally accompanying the biological survey and forest inventory teams during field work phases.
- Avoiding environmental surveys in sites with prohibited-entry due to cultural or religious reasons.
- Designing surveys to support collection of additional social information (mapping of more distant sites that are critical for basic needs, cultural reasons or future livelihoods, such as hunting and gathering areas, swidden areas).
- Identifying additional needs such as local guide(s) who can help the assessment team to navigate through difficult terrain and provide valuable information for logistic arrangements.

Working with the Organisation

It is common for the Organisation staff to support the assessment team with planning and logistics during the full assessment, and it is recommended for the assessor to discuss any practical arrangements such as access to the sites, health and safety rules, logistics, both before and while on-site with the Organisation staff.

Nevertheless, the assessment team must ensure the Organisation’s support does not interfere with data collection and with the robustness of consultation processes. This should be done by agreeing in advance with the affected communities whether and when the Organisation’s staff should be included in assessment activities.

Regardless of context, all assessments must follow a set of basic principles as described below.

Key principles and concepts in assessments

Meeting minimum preconditions

Assessors are expected to avoid conducting assessments where impediments still exist including where the organisation cannot demonstrate any legal rights over the MU, there are no environmental and social safeguards in place, there are unresolved social conflicts, observed/ongoing deforestation by the commissioning organisation and lack of FPIC, where applicable. Whenever there is indication of any impediment, the assessment must stop unless and until these issues have been addressed and the preconditions for the assessment are met.

HCV-HCSA assessments may be implemented in different contexts. If within certification, checking of preconditions is focused on:

- Legality: The assessor checks and documents if the Organisation can show documented legal rights over or permission to conduct an assessment in the area
- Land clearing: The assessor checks and documents if the Organisation can show a statement declaring a moratorium of land clearing/development until ICLUP (or equivalent) is completed.
- Free, Prior and Informed Consent (FPIC): if there are affected communities, there is evidence that the Organisation has initiated the FPIC process, so affected communities have given free, prior and informed consent to the assessment, and have chosen how they will be represented in the assessment process
- Preliminary participatory mapping: if there are directly affected communities, information on tenure

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15 This section follows content in the Implementation Guide for the Social Requirements of the HCSA, and in Common Guidance for the Identification of HCVs
16 HCVN ALS accepts reports with evidence that the Organisation is committed to/ following the RSPO New Planting Procedure (NPP) (which requires development is on hold until NPP is completed)
and use patterns has been collected in the Land Tenure and Use Study through preliminary participatory mapping.

**Free, Prior and Informed Consent**

If outside certification, in addition to the above points, the assessor must also check and document if the Organisation has a commitment to environmental and social safeguards.

Whenever HCV-HCSA assessments are conducted in areas owned or used by indigenous and local communities (directly affected communities), their FPIC is required to conduct the assessment and they have the right to participate in the assessment activities including participatory mapping, information exchange through different methods, and the final consultation. In these cases, local people’s lands for future livelihoods are also identified.

The following practices are required to comply with the FPIC principles:

- Proceed with assessment activities (e.g., participatory mapping, interviews for information exchange, forest inventory) only once there is documented evidence that consent to conduct the assessment has been granted by the directly affected communities.
- Whenever an affected community withholds consent to proceed with the assessment, the land owned and/or used by the community must be excluded from the assessment.
- Directly affected communities with ongoing land conflicts/disputes must not be included in the assessment unless all parties involved agree to proceed.
- Engage with all the affected communities and their self-chosen representatives (and advisors, if applicable) following the agreed consultation and coordination mechanisms.
- Even if there is documented FPIC to the assessment, confirm there is informed consent from the affected communities (or their individual members) before entering their lands to conduct any fieldwork. Engage the designated representatives of the affected communities to accompany field teams wherever possible. This applies to field/community visits during all steps of the assessment.
- In preparation for, and during participatory mapping, consultations, and discussions with the affected communities, provide information in a timely, clear and easy-to-understand manner.
- Request, receive and document information shared by members of the affected communities and their representatives about current and planned resources and land use.
- Present for consultation the draft HCV and HCS Forest areas and proposed management and monitoring recommendations (including draft HCV and HCS Forest management areas needed to protect and/or enhance the values and HCS Forest). Consultation means that an informed conversation about the best ways to achieve the protection and/or enhancement of the values found will be facilitated with the affected communities and other stakeholders and the results of these discussions will be documented.

**Consideration of risk to HCVs and/or HCS Forests**

The level of effort for assessments (scope and time dedicated to field work, consultations to identify HCV distribution, sensitivity and vulnerability of HCVs), must be proportionate to the level of risk:

- Potential developments of large scale (spatial or temporal) and/or intensity (severity of the impact) may pose a greater risk to HCVs and/or HCS Forests.
- Some HCVs are more vulnerable (i.e. RTE species with already diminished populations, regionally threatened or rare ecosystems, cultural and economic activities of minorities facing displacement, resources critical for basic needs that are already diminishing) and hence their risk is high.

**Precautionary approach**

The precautionary approach consists of actively avoiding irreversible damage to the environment or to human welfare. HCV-HCSA assessments are used to inform land use planning and development, hence a set of practices emerging from the precautionary approach...
must be applied in their conduct:

- Assessments must be designed to confirm presence or absence of - at least – the sub-set of common and identifiable HCV attributes (See Table 1) as well as to ensure identification and categorisation of forest carbon stock classes. Decisions on absence require collecting sufficient information (credible secondary data, field survey results, expert opinions, etc) to decide that - beyond reasonable doubt – an attribute or even a value is not found in the area of interest. This is even more important in land conversion developments, which are likely to pose more severe threats to HCVs and HCS Forests than developments with limited habitat disturbance/degradation/loss and no displacement of local people’s resource use.

- When there are reasonable indications (from field work or credible secondary sources) that an HCV is present, the assessor must assume it is present. Similarly, should initial land cover maps indicate the potential presence of HCS Forests, the assessor must assume it is present, unless there is clear and credible evidence of its absence.

- Limitations of assessments must be acknowledged with all parties, so shortcomings are addressed later by the Organisation commissioning the assessment (see Part 1 section “Final consultation of the preliminary findings” and also Part 2). Some potential HCVs may only be identified at certain times of the year because of the seasonality of their presence (migratory species) or because of the unpredictable presence of directly affected communities supplying their basic needs with resources in the area assessed (such as nomadic hunter-gatherers or pastoralists). Other potential HCVs may be insufficiently known (pollinators) or too costly to be surveyed in detail (insects, fungi, aquatic micro-organisms). Final consultations must disclose limitations of the assessment and gather feedback/insights for follow up measures to be recommended to the Organisation (see Part 2).

Some examples of using the precautionary approach:

- A Key Biodiversity Area or a national protected area will qualify as HCV 1 if there is no further credible information as to the quality of its flora and fauna.
- If during surveying or in forest inventory plots, young regeneration of HCV 1 species is found several times in areas of old mixed rubber/agroforestry, all of the old mixed rubber/agroforestry in the assessment area should be considered HCV 1 area. Absence of HCV 1 in these areas could only be declared if the entire areas of old mix rubber/agroforestry have been surveyed and results show HCV 1 is absent in some of them (including any regeneration of HCV 1 species).

Proportionality and practicality of HCV and HCS Forest management and monitoring recommendations

Assessments must result in HCV and HCS Forest management and monitoring recommendations (M&MR) for the Organisation to implement and aimed at ensuring identified HCVs and HCS Forest patches are protected and/or enhanced. Management and monitoring must reflect the overall vulnerability of the values and HCS Forest and be proportionate to the level of risk posed by the potential development and from other existing threats. Management and Monitoring must consider feasibility and effectiveness of implementation.

Significance

Significance is a criterion to designate an HCV. Significant values are those recognized as being either unique, or outstanding relative to other examples in the same region, because of their size, number, frequency, quality, density or socio-economic importance, on the basis of existing priority frameworks, data or maps, or through field studies and consultations undertaken during the HCV assessment.

HCV 1, 2, and 3 need to be significant at a national or regional (across countries) scale (or higher), while HCV 4, 5, and 6 are significant to the affected communities (or to a sub-group within each affected community) that rely on them – so they are not relative to any scale but

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17 As detailed in Common Guidance for the Identification of HCVs. Part Two.
18 As detailed in HCSA Toolkit V2, Module 4.
absolute in their irreplaceability to that community or sub-group.

For HCV 1, 2 and 3 identification, significance is declared on the basis of any one of the following processes:

- A threatened (IUCN red listed Vulnerable or higher) designation, classification or recognized conservation / protection status, assigned by an international agency, (e.g., IUCN Red List, UNESCO World Heritage Site, Key Biodiversity Area-KBA, Important Bird and Biodiversity Area-IBA, Intact Forest Landscapes -IFL as mapped by Global Forest Watch)
- A designation by national or regional authorities (e.g., nationally recognised protected areas and national lists of protected species), or by reputable non-governmental organisations (NGOs)
- Designations of specific values through field studies or expert consultation
- A designation (e.g., by a forestry or agriculture organization), on the basis of available information and consultations about known, suspected or reported values, even when not officially recognized by other agencies.

Criticality

Following the Forest Stewardship Council (FSC), “the concept of criticality [...] relates to irreplaceability and to cases where loss or major damage to this HCV would cause serious prejudice or suffering to affected stakeholders. An ecosystem service is considered to be critical (HCV 4) where a disruption of that service is likely to cause, or poses a threat of, severe negative impacts on the welfare, health or survival of local communities, on the environment, on other HCVs, or on the functioning of significant infrastructure (roads, dams, buildings etc.). The notion of criticality here refers to the importance and risk for natural resources and environmental and socio-economic values.”

Independence from land planning decisions

HCV-HCSA assessments gather information to inform land use planning decisions, but are not in their own a decision-making tool, so assessors must be careful to conduct the assessment independently of any governmental, private or local land development plan or ambition.

The assessment results (findings on HCVs, HCS Forest, peat and local peoples’ lands) as well as the management recommendations will be informed by consultation but must be consistent with the data collected and credible secondary sources.

Results from assessments do not impose on nor affect the legal rights of Organisations/land-owners/users to decide what activities conduct in their lands.

Since most Organisations commissioning assessments have made voluntary commitments (NDPE, no conversion) or intend to comply with requirements from voluntary sustainability standards, they must fully consider assessment results prior to making land-use decisions.

Where the results of the assessments that have passed HCVN quality assurance are not adopted or incorporated into land use decisions, resulting in the destruction of HCVs and/or HCS Forest and/or local peoples’ lands, no claim can be made of meeting the HCV or HCS approaches, or abiding by NDPE commitments, or by any topic relating to the scope of this manual.

Wider landscape consideration

Most HCVs (wide-ranging species, RTE ecosystems, terrestrial and aquatic wildlife corridors, watersheds, designated conservation areas, areas providing ecosystem services critical to satisfy basic needs of local communities, etc) and HCS Forests occur across broad landscapes encompassing multiple land holdings and the associated users and right-holders.

Because of this, maintenance and enhancement of many HCVs is infeasible at the assessment area level alone, and connectivity to/among HCV protection areas is crucial for their long-term persistence.
Hence, considering the wider landscape context – both in its social and environmental dimensions – is crucial to protect HCVs and HCS Forests inside the assessment area and to prevent negative impacts on HCVs and HCS Forests around the assessment area. The delineation of the area of interest (AOI) must consider the wider landscape for effective management and monitoring of HCVs. Principle reasons for this include:

- HCVs potentially present in the wider landscape will need to be protected from any direct or indirect impacts from the potential development, through adequate management and monitoring measures (including the delineation of buffers within the assessment area (AA) to protect adjacent HCVs, such as community lands or protected areas).
- It allows for identification of potential partnerships with other stakeholders in the landscape to protect HCVs at a more meaningful scale, particularly through collective implementation of measures to reduce threats that increase the risk of habitat fragmentation or impact directly some HCVs.
Integrated HCV-HCSA Assessment Process

**Pre Assessment**
- Preconditions Check and Verification of Compliance with HCSA Requirements
- Propose Preliminary Definition of the area of Interest
- Produce Preliminary Land Cover Classification Map

**Scoping Study**
- Consultation with Affected Communities
- Consultation with Stakeholders and Organisation Staff
- Ground Truthing of Preliminary Land Cover Map
- Preparing for Full Assessment

**Full Assessment**
- Fieldwork
- Consultation of Preliminary Findings
- Analysis & Report Writing
1.1 Pre-assessment

The pre-assessment is a desk-based step consisting of gathering information, beginning the analysis of secondary data, and planning the scoping study.

The objective of this stage is to:

- **Confirm that the minimum conditions to conduct a scoping study are met (preconditions).**
  - Propose a preliminary definition of the area of interest.
  - Produce the preliminary land cover classification.
  - Produce a scoping study plan, detailing sites, activities, human and logistical resources needed and dates.

1.1.1 What must be done?

a. Conduct preconditions check and verify compliance with other CSA requirements (studies and processes)

The assessor should have started checking the pre-conditions before signing the contract so at this point additional information may be requested from the Organisation only if some preconditions have not been verified yet (see section 1.1.2. What information is collected)
The pre-conditions to document are that the Organisation:

- has legal rights over or permission to conduct the assessment in the area.
- is committed to environmental and social safeguards (applicable if the assessment is conducted outside certification).
- has made a commitment to moratorium of land clearing/development until ICLUP (or equivalent) is completed,
- (If there are affected communities), has initiated the process to gain their FPIC to the assessment process and mechanisms for engagement and representation are (being) agreed.

NOTE: If the process is only initiated, checking pre-conditions related to FPIC must be included as an activity in the next stages of the assessment (scoping study and full assessment) and the documented evidence must be collected.

The other key HCSA requirements to verify are that the Organisation:

- Has completed the Social Background Study and the Land Tenure and Use Study (LT&US) before the start of the assessment. The LT&US must include results of preliminary participatory mapping, which must be validated during the scoping study and full assessment to confirm they reflect the current situation. The land tenure assessment needs to clarify which institutions have authority over lands, and who controls how lands are acquired, inherited and transferred.
- Has a list of potentially affected communities.

b. Propose a preliminary definition of the area of interest.

The assessment team shall collect enough information on natural boundaries, social boundaries, and arbitrarily defined boundaries to propose a preliminary definition of the AOI for the assessment. A preliminary AOI is needed to start the preliminary landcover classification and for planning the scoping study.

This AOI includes the Assessment Area (AA) and the wider landscape adjacent to the AA.

The AA is the area within the Organisation’s management unit(s) – MU(s) that will be included in the assessment. Often AA and management units(s) are identical. However, there are situations where the AA only covers partially the MU(s), for example when a portion of the MU(s) is excluded because consent to conduct the HCV-HCS assessment was not obtained by the Organisation from the relevant directly affected communities. In limited circumstances, such as when the local community does not provide consent, the AA may be smaller than MU, but the rationale for this decision must be clear and documented by the assessor (see Part 2). Areas within the MU but excluded from the assessment area due to extraordinary circumstances must be considered part of the Wider Landscape (of the assessment area) and must be marked as “not-assessed” at all relevant steps of the assessment (see 1.4.4. Final consultation).

The boundaries of the AOI shall be defined by any of the following criteria, but regardless of the option chosen, in all cases must include a 1km buffer around the AA boundaries (to meet requirements for the HCS Forest Patch Analysis), and must include all affected communities (the centre point, and community boundaries where this information is available).

NOTE: In some assessments, there will be a difference in the shape and size of the “social AOI” (the areas corresponding to the affected communities) and the “environmental AOI” (defined by the natural boundaries).

20 If the studies are older, the assessor must verify if detailed, recent and complete enough and require updated versions (for example, if land use and/or ownership and/or land cover have changed since the studies were conducted).

21 Requirements of certification schemes may also lead to assessments being conducted in areas with outstanding natural land cover located within larger and already partially developed management units.

22 In some countries such as Papua New Guinea, mapping village boundaries may be difficult due to lack of official government defined boundaries.
The criteria to define the AOI are:

- **Natural boundaries**
  - aligning with identified areas and boundaries of watershed(s); or
  - aligning with the geographical land unit containing a cluster of interacting ecosystems; or
- **Social boundaries**
  - aligning with identified and or indicative village boundaries; or
  - aligning with identified and or indicative community’s land; or
- **Arbitrarily defined boundaries**
  - selecting a unit size that encompasses the AA and a surrounding buffer; or
  - sing a radius of 5 km from the centre-point coordinates of the assessment area, or
  - using existing administrative boundaries.

A combination of natural, social and arbitrarily defined boundaries is allowed.

### NOTES:

The definition of the AA and the AOI may be refined after the scoping study, and even during full the assessment, for example if an affected community decides to withdraw their consent to participate in the assessment.

If the resulting AOI includes non-affected communities, this must be disclosed during the assessment (consultations) and in reporting (see PART 2 section).

c. Produce the preliminary land cover classification (LCC) map.

The GIS/remote sensing specialist must produce a preliminary land cover classification covering the AOI using selected satellite images for remote sensing analysis, following the requirements of HCSA Toolkit V2. Selecting an appropriate satellite image with suitable resolution, as per HCSA Toolkit V2 (Module 4, page 15), is crucial for accurate preliminary land cover mapping and initial vegetation classification using remote sensing analysis, as an unsuitable image may lead to erroneous results and render the analysis ineffective. The steps to do this are:

#### Step 1. Image Acquisition.

First acquire images of the AOI using appropriate sensors and platforms that meet the following image requirements:

- No older than 12 months prior to the commencement of HCV-HCSA assessment process.
- Have a 10-meter or finer spatial resolution.
- Have less than 5% of cloud cover within the AOI.

During the rainy season in tropical regions, it can be difficult to find satellite images with low cloud cover (5% or less). The utilization of cloud removal techniques is allowed as long as the process is described in the report (Part 2) and the data used are within the period 12 months prior to the assessment process.

- Additional provision from HCSA Toolkit V2 (Module 4 page 15): Lower resolution images, like Landsat 8 with 30 m resolution, may be used as ancillary data in combination with the main high-resolution images (e.g., to make use of the higher spectral resolution). Resampling of lower resolution images to a 10-meter resolution can be accepted, given that certain bands in multispectral images (despite having a lower resolution) may have valuable spectral information (e.g., shortwave infrared) which are useful for band combinations and computation of vegetation indices to enhance image processing and landcover classification results. To avoid introducing errors, it is recommended to carefully evaluate and document the results of any analyses that make use of resampled data. The assessor must state the use of resampled images, the reason why the resampling was conducted, and the description of resampling process (see Part 2).

The use of lower resolution images as a main image data source is only permitted if higher resolution images are not available or obtainable. However, the images must be replaced as soon as higher resolution data become available.

#### Step 2. Pre-processing.

These images are **pre-processed** to prepare them for further analysis. The goals of pre-processing are correcting any errors or distortions in the images, enhancing features of interest, and making the image more suitable for the intended analysis.

The pre-processing process typically includes several
steps:

• Radiometric correction: correcting errors in the image caused by differences in sensor calibration, atmospheric conditions, and other factors.
• Atmospheric correction: correcting the effects of the atmosphere on the image, such as haze, smoke, and atmospheric scattering.
• Geometric correction: correcting geometric distortions in the image caused by the sensor, platform, and terrain.
• Image enhancement: by adjusting the contrast, brightness, and other image properties to make features of interest more visible.
• Sub-setting: cropping the image to match the AOI.

Step 3. Object-based Land Cover Classification

Object-based land cover classification is a method of image analysis used to classify remote sensing images into different land cover classes. Unlike traditional pixel-based classification methods, object-based classification segments the image into multiple segments or “objects” based on image features such as texture, shape, and size. Each object is then classified based on a set of predefined rules and decision trees using a variety of image-derived attributes and ancillary data. To improve classification outputs, masking of known features such as plantations, mining concessions, and lakes may be optional since their aerial extents are already known.

Step 4. Accuracy assessment of the preliminary land cover classification

Once the preliminary land cover classification is completed, the remote sensing specialist must design the accuracy assessment process. The accuracy assessment will cross-check the processed image against randomly generated samples within each land cover class using methods such as visual comparison with recent high resolution aerial images (i.e., Planet/NICFI). A minimum of 50 sample points should be assessed for accuracy with each land cover class. The preliminary land cover classification must reach an accuracy of at least 70%.

If the accuracy assessment shows under 70% of Producer’s and/or User’s Accuracy, the remote sensing specialist may need to increase number of segments used in the object-based land cover classification (Step 3.) and re-conduct the classification.

Based on the results of this preliminary land cover classification, the remote sensing specialist must generate sample points for each principle classification and related maps for field teams to conduct land cover validation (ground-truthing) during scoping study visits. Ground-truthing should focus on areas that are often misidentified in desk-based interpretation, such as scrub/thicket and young secondary forest; forests that can often be misidentified as swidden fallow/agriculture areas/agroforests or visa-versa.

d. Produce a scoping study plan.

The assessment team must review and synthesize information collected about the Organisation, the assessment area and the wider landscape (see next section) and conduct a gap analysis to identify remaining data needs. This information is then used to produce a Scoping Study Plan including:

• The dates and duration of the scoping study (multiple visits may be required sometimes).
• The capacity needed in the field (profiles of team members, including independent interpreters, if needed).

NOTE: Field work may be conducted by one team member if there are no affected communities, or if the team member has a skill set to cover social and environmental aspects. Otherwise, if there are affected communities in the AA, scoping will be conducted by at least two team members, including one familiar with the land cover map and able to ground-truth it and one with social studies expertise.

• The logistical considerations (size and accessibility of the site) and the Organisation’s support with logistics.
• The sites for field visits to ground-truth the preliminary land cover classification.
• The stakeholders to engage for additional informa-
• The Organisation’s field staff that may help understand preparatory processes or provide information only available on-site.
• A representative sample of affected communities (if applicable) to be visited, ideally including:
  • some whose land/areas of customary use will be impacted by the project (i.e. communities leasing land to the Organisation).
  • some already engaged in FPIC process (according to information provided by the Organisation).
  • some close to/overlapping with planned land cover classification ground-truthing sites.
  • a range of communities with different characteristics (geographical, political, ethnicity or religion of occupants, and economic).

1.1.2 What information is collected?

Some of the information must be obtained from different sources, by the assessors themselves. Other information shall be provided to the assessor by the Organisation.

About the Organization

• The type of organisation commissioning the assessment: it may be a corporate entity (with or without multiple developments in the country/region), a subsidiary, a cooperative, a smallholders’ group with a group manager, a smallholders group associated to a mill/corporate entity, a community, etc. – This will indicate stakeholders to contact, sample for social field visits. This information is provided by the organisation.

• The Organisation’s rights to the assessment area: land tenure/use status (initial information on who controls/owns/uses the land). What is the type of lease or ownership arrangement? – This will indicate if the Organisation has legal rights and help understanding links between changes in landcover and the Organisation’s (or other’s) responsibilities; will also inform which stakeholders to contact during the scoping study (if the land is owned or used by others.
than the Organisation). This information is provided by the organisation.

- The reasons for the assessment: is the Organisation a (subsidiary of a) member of a certification scheme/ HCSA/ HCVN? Does the organisation have policies requiring the assessment be conducted?
- Has the organisation committed to a moratorium on any land clearing or land preparation until the proposed ICLUP (or equivalent) has been completed?
- Has the Organisation been the object of complaints or campaigns? Is the assessment part of a remediation process? – This may indicate whether the organisation has awareness and resources (previous studies) that can be used to plan the scoping study; whether the organisation meets the required commitment to moratorium, or it may stress the need to confirm minimum conditions for the scoping study are met (no ongoing land conflict, no issues with FPIC), and verify potential deadlines for completing the assessment and assurance process. This information is provided by the organisation but information on complaints/campaigns may also be available online.

- Studies required by HCSA: Social Background Study and Land Tenure and Use Study – LT&U (including preliminary participatory mapping results, reflecting the current situation) completed by the Organisation.
- If these studies are not completed the assessor must not proceed to the scoping study until these required studies have been completed.

This information will indicate whether there are affected communities and any other stakeholder in the wider landscape (such as non-affected communities and other land-owners or concessionaires). If directly affected communities are present, the scoping plan must include activities to validate the LT&US preliminary participatory mapping with a sample of them. This information is provided by the organisation.

- Processes required by HCSA: The assessor must gather information about the initiation of the FPIC process with the affected communities done by the Organisation (if these exist), including the agreements for participation and representation in the assessment process.

The following information must be obtained from the Organisation, publicly available credible sources, and/or produced through analysis:

- Name, location, area (ha) and coordinates of the assessment area(s). This helps establish the location of the AA, and together with context information (see next section) will inform the definition of the AOI (assessment area + wider landscape).
- Potential extent and type of development activities (if applicable). This will help gain insight on the scale of potential development and the related likely impacts, which can be discussed in more detail with stakeholders during the scoping study.
- Information on certification status or ambitions (if applicable): If the area is already certified, it is likely there is information relevant to the scope of the assessment and there may even exist previous HCV and/or HCSA assessment reports. These are a good secondary source to contrast with the current land-cover and plan scoping field visits. The organisation can provide information about this. The certification schemes’ databases can also be used.
- Other relevant social or environmental studies related to the potential development: in some countries, SIA, Environmental Impact Assessment (EIA) or SEIA studies may be required: If the organisation has conducted any of these studies recently, it is likely they would include useful information to plan the scoping study and also to further explore during the assessment, for example, results of food security surveys.

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24 See HCSA Toolkit V2, Module 2. Section B.
• Satellite imagery of the AOI (See section Image Acquisition) 

To produce the preliminary landcover classification (pre-processing followed by object-based classification; refer to HCSA Toolkit V2, Module 4). The preliminary landcover classification and in combination with secondary information (land cover/use maps from LT&U study) will give an idea about the condition of the AA(s) and the wider landscape (developed, degraded, comparatively intact, etc.) and help decide on areas needing site visits during the scoping study. The assessor must obtain and analyse this information.

• Information about the social aspects in the wider landscape (ethnicity, economy, cultural and organisational aspects) as well as reliance on ecosystem services for livelihoods and available public services (health-care, water, electricity, transport, markets): This will provide an indication of potentially present HCVs 4, 5 and/or 6 and will help planning the scoping study community visits (it is advisable to choose a diverse sample).

• Information about environmental features: land system maps, soil studies and maps, species, habitats and ecosystems that may be present, as well as any areas of importance for conservation (local, regional, national or global); including a recent peat study conducted by the organisation (if applicable). This will provide an indication of potentially present HCVs 1, 2 and 3.

• Information about other land users in the wider landscape: this will help identify potential threats but also opportunities to protect/manage HCVs in collaboration with neighbours.

• HCV National interpretation: where National Interpretations exist, the assessor must become familiar with them and with their specific methodological requirements for the identification of HCVs, because in some cases this may influence what secondary data is required to be used as reference and even what methods and sampling should be applied during the full assessment (while complying with requirement to assess all affected communities and within them a sample of all sub-groups).

• Information about existing or planned policies (such as spatial and development plans and maps), or other developments that may affect the HCVs and HCS Forest in the region. This will provide an indication of evolving threats to HCVs that may need to be managed by the development.
1.2 Scoping Study phase

### 1.2.1 What must be done?

The scoping study is a mandatory, mostly field based activity, conducted prior to the full assessment that helps understanding the terrain and gaining detailed knowledge of the social and environmental context.

It consists of gathering and reviewing additional information, making observations in the field, conducting preliminary in-person consultation and information exchange with some of the relevant stakeholders, including the affected communities (where applicable) processing and analysis of scoping study observations, and planning for the full assessment.

The objectives of this stage are:

- If there are affected communities, verification of evidence that minimum preconditions required to conduct a full assessment have been met, including preliminary participatory mapping. If not, the assessment must stop until the conditions are met.
- Compilation of information needed to prepare for the full assessment, through preliminary information exchange and consultation with stakeholders and the Organisation’s field staff.
- Production of the final land cover classification.
- Preparation for the full assessment.

The scoping study field work is conducted by at least one member of the assessment team (but additional experts are commonly needed if there are affected communities).
communities). This can be the lead assessor, and/or another member(s) of team with the relevant experience and expertise to conduct the scoping study field work (including ground-truthing of the preliminary land cover classification and engagement with affected communities, if applicable). Support from local experts (e.g., language skills, facilitation, familiarity with local terrain) may be required sometimes to ensure the scoping study is effective.

The scoping study encompasses at least the following activities:

- Consultation and information exchange with affected communities (if applicable).
- Consultation with local/regional stakeholders and interviews/discussions with the Organisation’s on-site staff/workers to gain insights on the local context and conditions and to request documents only available on-site.
- Ground-truthing of the preliminary land cover map (to produce the final land cover classification later).
- Planning for the full assessment.

1.2.1. Consultation with affected communities

Whenever the Organisation has identified potentially affected communities in the AOI, the assessment team must carry out the following activities with a sample of the affected communities:

- Explain the HCV-HCSA assessment objectives and activities including field visits, information exchange, consultation steps, and the final consultation (stressing the right to consent or not to the assessment and its activities) and discuss forests and resources in an appropriate (non-technical) way, so the members of the affected communities have a strong conceptual understanding of the HCV and HCS approaches, the assessment activities, and the implications for future land and natural resource use, including their role in management and monitoring.

- **Verify the status of the FPIC process** reported by the Organisation. This must be done by triangulating information from document review, interviews and direct observation to determine whether the affected communities:
  - have been informed by the Organisation about the potential development (location, scale and objectives) and its development and conservation dimensions.
  - have given their FPIC to the HCV-HCSA assessment going ahead.
  - have freely nominated their own representatives.
  - have been made aware that they can say no to the assessment, development or to conservation plans.

- **Verify the status of the social studies (Social Background Study – SBS, LT&US)** reported by the Organisation. If the LT&US study has not been conducted, then the full assessment must not proceed. This includes:
  - Validating that the affected communities participated in the LT&U study.
  - Validating with the directly affected communities the preliminary participatory mapping results from the LT&US (digitised versions of these, including information on community boundaries extracted from the LT&U study, should be prepared before the scoping study); note good quality preliminary participatory maps should provide inputs to inform the discussion on local peoples’ lands and social HCVs25.

**NOTE:** If the social studies have not been completed, and/or if there are affected communities and the FPIC process has not been initiated, the assessment must stop and cannot be resumed until these conditions are met and verified by the assessment team, by repeating activities b and c above.

1.2.1.2. Consultation with stakeholders and Organisation’s staff

These initial consultations allow gathering primary information on the social and environmental situation in the AA and wider landscape and identifying concerns and recommendations regarding the assessment and the potential impacts of the potential

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25 In some cases, during scoping (or full assessment) directly affected communities may share their own participatory mapping results and community planning information (developed independently from the Organisation’s activities); this information must be used to adapt the scope of the field studies (what information needs to be collected), to recognise the pre-existing community identification processes and avoid duplicating efforts.
development on HCVs, HCS Forest, and local peoples. Initial consultations and information exchanges during the scoping study must include:

- Local non-affected communities (if applicable).
- Other private sector actors with interests in the area (concessionaires, other developers).
- Social and environmental experts who may join the full assessment team or who have data or information and/or concerns to share.
- National and local government.
- NGOs and civil society.
- Organisation’s staff on the ground (including those that may have been involved in previous social studies) that may provide information available only in field offices, about logistics (accessibility), local contacts, local calendar (so assessment activities avoid conflicting with local priorities) and health and safety provisions.

1.2.1.3. Ground-truthing of the preliminary land cover map (to produce the final land cover map)

Field validation of the preliminary land cover classification map must be conducted during the scoping study through ground-truthing, visiting the independently selected sample points (ground-truthing survey locations/checkpoints) determined by the remote sensing expert.

Following the HCSA TK Module 4 (page 19), when choosing the number of samples to be collected in the field for the subsequent accuracy assessment, a balance between what is statistically sound and what is practically attainable must be found. General guidelines suggest collecting a minimum of 50 samples for each land cover class (Congalton and Green 1999). For larger areas (more than about 400,000 ha) it is suggested that a minimum of 75 samples should be collected per land cover class (Congalton and Green 1999). When ground-truthing, the assessor should log the coordinate points, and take photos of the points for all compass directions, and the canopy.

Where access is difficult (i.e. dangerous terrain presenting risk to personal safety), drone survey may be used for the ground-truthing of the land cover; in this case, it is recommended to establish five or more ground control points (pre-ground-truthed fixed points) prior to the survey and the assessor should ensure that photos with sufficient resolution are produced (taken from <100 m above the ground). Where there are people and communities, assessor should ensure that the use of drones does not invade someone’s privacy, and that people’s rights are respected. A set of principles for socially responsible use of drones can be found on https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.374.

Alternatively in such conditions, ground-truthing using Planet (up to 3-5 m resolution) can also be considered.

The Final Land cover map

The creation of the final land cover map involves refining the preliminary classification through the incorporation of additional information based on the result of the ground-truthing during the scoping study and further processing. The assessor must conduct accuracy assessment for the final land cover classification, resulting into a minimum 80% of Producer’s and User’s Accuracy. The availability of the final land cover map prior to assessment field work is essential for:

- developing an effective HCS Forest inventory plan that distributes plots focusing on scrub and young regeneration forest to accurately differentiate between potential HCS Forest and non-HCS areas. In the absence of relevant secondary data (such as means and standard deviations from similar forest/vegetation types), particularly on land cover classes equivalent to HCS land cover categories Forest (HDF/MDF/LDF), YRF and Scrub, a pre-survey during the scoping should be conducted to collect the data.

- designing biodiversity surveys that effectively
sample areas considering all the land cover classes identified.

If a final land cover map is not achieved prior to assessment field work, appropriate sampling for HCS and biodiversity cannot be ensured, and the assessor cannot therefore justify that the forest inventory and biodiversity surveys were well-designed.

**1.2.1.4 Preparing for the full assessment**

The scoping study results and previously collected information will inform whether the conditions to proceed to a full assessment are in place and will provide inputs for the design and planning of the full assessment.

Planning includes:

- **Consideration of timing for the full assessment:** The full assessment must commence no later than 12 months after the end of the scoping study field work; the scoping study may need to be fully/partially repeated if more than 12 months have passed since conditions/consent to the assessment may change. The full assessment may be conducted right after the completion of the scoping study. The assessment team can do the analysis of the scoping study results on-site ensuring that all necessary preparations and requirements are met before moving forward into the full assessment.

- **Consideration of changes in landcover between scoping study and full assessment.** When landcover changes in the assessment area between the scoping study and the full assessment indicate clearance of potential HCS Forest or HCV area, the assessment team must identify and map the cleared landcover types and include them in the HCS Forest stratification (as if still forested/containing HCVs but differentiated from remaining forest and HCV areas through labelling as either degraded or cleared) for the purpose of the HCS Forest Patch Analysis decision tree. The final patch analysis map shall identify the areas that should have been conserved (as determined by the steps in the HCS Forest Patch Analysis decision tree) so that they can later be identified for restoration by the Organisation.²⁸

- **Defining and contracting the technical capacity needed.** The composition of the assessment team, including their qualifications is crucial to the success of the assessment. Presence of affected communities will require a social team with the skill set to facilitate the field work with them. Specific expertise (e.g. bat identification, peat studies, mangrove ecology) or ability to use specialist equipment (e.g. camera traps) should be considered when assembling a team.

- **Determining what fieldwork is needed and developing the methods.** The lead assessor should coordinate the preparation of methods for collecting and analysing relevant data for HCV and HCS Forest identification (and peat verification, if data collected indicates potential presence of peat soils), with team members developing the sampling and methods design for desk-based information gathering activities and for field work (including tools, stakeholders to include, etc) according to their expertise. The assessment team must choose methods and sampling strategies, considering the following:

  - Site characteristics: the final land cover map will give clear indications of the areas needed to be surveyed during the full assessment.

  - Secondary information and scoping results: these must inform the decisions on what surveys (different taxa) are needed for environmental studies, considering all HCV 1, 2 and 3 attributes (see Table 3), and also to assess presence of HCV 4 (see Table 1).

  - There is no specific prescription for determining sampling size and sampling intensity. The assessor should ensure to allocate the sufficient level of effort necessary to collect data needed to come to conclusive findings.

- For the HCS Forest inventory, ideally, a limited number of HCS Forest Inventory plots should have been taken in each stratum identified in Initial Land Cover Classification to gauge variability during the Scoping study. This variance and mean of plots can then be used to determine the number of Inventory plots required to achieve a 90% confidence during the full assessment. (See HCS Toolkit Module 4 and HCSA Advice note 3)

- Efficient use of time and other resources: field studies should be organised to optimise use of time and resources. This is also appreciated by affected communities and other stakeholders who can avoid

²⁸ See HCSA Advice Note 6
multiple, often repetitive, consultations and visits to gather and exchange information.

- More than one field visit during the full assessment may be required and beneficial, for example in areas where consent to the assessment was obtained at a later stage.

- Planning for participatory mapping must include all directly affected communities (those that overlap with the assessment area).

- Indirectly affected communities outside the assessment area must be included in consultation activities so they can identify their HCVs likely to be affected by the potential development and discuss appropriate management and monitoring to minimise impacts on their HCVs.

- Sampling within affected communities must consider all sub-groups, including minority, vulnerable and marginalised groups that must be engaged to collect information about their specific basic resource needs and customary land use. Note this may require sometimes support from interpreters but also special logistical considerations (adapting to availability of sub-groups or considering cultural practices/preferences). If a National Interpretation is used as reference for the assessment, it may include specific sampling size requirements that must be met, while complying with the requirement to include all affected communities, and within them a sample of all sub-groups.

- Respect for agreed consultation mechanisms: affected communities are organised and will have designated the appropriate people to engage with the assessment team; these representatives may support with organising meetings and inviting relevant people to attend.

- Inclusion of other relevant stakeholders through specific methods (interviews, focus group discussions, etc), providing them with information in advance relating to the upcoming assessment, the assessment team’s responsibilities, and timing.

**1.2.2 What information is collected/produced in the scoping study?**

- Timeline, activities, and map of the scoping study
- Detailed documentation of scoping consultations and information exchanges with the sampled affected communities, including meeting notes, photos, lists of participants and documentation of the triangulation verifying that affected communities have given their consent to the HCV-HCSA assessment (study plots, data gathering, mapping, additional meetings, etc) going ahead.

- Preparing the materials/equipment required to conduct data collection, analysis, and consultation during the field visits. This includes preparing all adequate materials to explain the assessment to stakeholders (and affected communities, if applicable) and to support field activities, such as:

  - copies of the preliminary participatory mapping results conducted during the LT&U study.

  - printed versions of the final land cover map to use in field surveys, participatory mapping and other methods used to gather information; the boundaries of the directly affected communities documented in the LT&U study should be also overlaid in the maps (if available) to help with participatory mapping.

  - visual aids to explain in simple terms what the assessment is, and to engage affected communities (if applicable) in data collection (e.g., photographic field guide).

Some equipment may be needed in the field depending on how the assessment is organised/ the characteristics of the area (projectors, soil/peat sampler set/equipment, camera traps, drones, etc)

- **Organising the logistics.** All necessary logistical preparations (and budgetary implications) must consider:

  - National/regional/local health and safety/security risks while traveling to and in the area and making all the necessary preparations to avoid and/or mitigate such risks.

  - Days or times when it would not be advisable to organise meetings e.g., religious days, public holidays, or times when everyone is at work.

  - Gender responsiveness, so assessment activities are planned to adapt to the different activities, needs and priorities of women and men, creating conditions for their participation.

  - Time needed to communicate the assessment calendar to the Organisation, relevant experts, stakeholders and affected communities (if applicable).
• Preliminary participatory mapping results (from LT&U Study) validated with directly affected communities.
• Detailed documentation of consultations, information exchanges and meetings with other stakeholders.
• Documentation of the land cover ground-truthing activities with ground-truthing coordinate points, and photos of the points for all compass direction, and the canopy – If a drone is used, then documentation taken by the drone. In all cases, the final land cover classification must be completed to proceed with the full assessment.
• All full assessment methods, materials, and plan (including calendar and lists of sites and individuals to be contacted).
1.3 Full Assessment

1.3.1 What the assessor must do

The full assessment is comprised of three main activities:

- Fieldwork
- Consultation of the preliminary findings
- Analysis and report writing

1.3.1.1 Field work

The assessment team travels to the field site to collect primary data. It is also common for the Organisation staff and interpreter/local facilitator to support the assessment team during the full assessment, but if there are affected communities in the assessment area, participation of the Organisation’s staff must be conditional upon consent from the affected communities.

The studies will vary depending on existing data and site-specific circumstances. Typical primary data collection falls into two parts: social fieldwork and environmental fieldwork.
1.3.1.1.1. Social Fieldwork

Social fieldwork is required in assessment areas where the Organisation\(^{29}\) has identified the presence of affected communities.

Purpose

The purpose of social fieldwork is to collect information from the affected communities about their HCV ecosystem services, sites and/or resources critical for their culture and current and future livelihoods as defined by National Interpretations and/or the Common Guidance and to discuss with them whether/how these could be affected by the Organisations’ potential development, and what measures should be in place to mitigate and monitor these impacts.

The assessment team must seek to collect enough information in the field (in addition to collected secondary information) to justify a clear decision supported by evidence on presence, potential presence or absence of such sites and resources by referring to (at least) all attributes listed in Table 1. Where information is insufficient, the team must apply the precautionary approach.

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\(^{29}\) The Organisation is responsible for identifying which groups are “affected communities,” and whether they are designated as being directly or indirectly affected. See https://highcarbonstock.org/sr-faqs/.
### Table 1 – Social HCV Attributes & Land use types required to be identified

<table>
<thead>
<tr>
<th>HCV 4 Ecosystem Services</th>
<th>HCV 5 Basic needs</th>
<th>HCV6 Cultural values</th>
<th>Other current land use</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Management of extreme flow events[^30]</td>
<td>• Hunting/trapping grounds (for game, skin and furs)</td>
<td>• Sites nationally designated or recognized as of high cultural value.</td>
<td>• Farmlands</td>
</tr>
<tr>
<td>• Maintenance of downstream flow regimes</td>
<td>• Non-timber forest products NTFPs (nuts, berries, honey, mushrooms, medicinal plants, rattan, etc.)</td>
<td>• Sites listed by an international agency like UNESCO.</td>
<td>• Forest fallows</td>
</tr>
<tr>
<td>• Maintenance of water quality characteristics</td>
<td>• Fuel (cooking, lighting and heating)</td>
<td>• Sites recognized as historically or culturally important even if unprotected.</td>
<td>• Tree farms</td>
</tr>
<tr>
<td>• Fire prevention and protection</td>
<td>• Fish/aquatic species (protein sources)</td>
<td>• Religious or sacred sites, burial grounds, or sites for local or traditional ceremonies.</td>
<td>• Gardens</td>
</tr>
<tr>
<td>• Protection of vulnerable soils, aquifers and fisheries</td>
<td>• Building materials (poles, thatching, timber)</td>
<td>• Plant or animal resources of totemic / ceremonial importance.</td>
<td>• Agroforestry systems</td>
</tr>
<tr>
<td>• Provision of clean water</td>
<td>• Fodder for livestock and seasonal grazing</td>
<td></td>
<td>• Fish farms</td>
</tr>
<tr>
<td>• Erosion control</td>
<td>• Water sources (drinking, sanitation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Protection against winds, regulation of humidity, rainfall.</td>
<td>• Items bartered/sold to obtain other essential goods (medicine, clothing, education costs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Pollination</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[^30]: As provided by vegetated riparian buffer zones or intact floodplains.
Once the affected communities’ critical ecosystem services, sites and resources have been identified, the assessment team must share information about the potential development (scale, intensity of the operations, etc) so the communities may discuss:

- Whether/how the potential development may impact their livelihoods and resources use and access.
- What management and monitoring measures should be agreed to minimize such impacts on all community sub-groups, including:
  - the identification of land for current and future livelihoods (land and resource needs) to be set apart from development and strict conservation.
  - the design of management areas (delineating them on the map) where certain practices will contribute to reducing impacts on social HCVs and will allow for affected communities to continue accessing their resources.

Who must be involved?

All directly and indirectly affected communities identified by the Organisation must be involved in the social fieldwork, unless some have not granted FPIC to the assessment (in which case, the areas corresponding to these communities must be excised from the assessment area).

Required field assessment activities are different if the affected communities are directly or indirectly affected by the potential development (See Table 2 below).
Table 2 – Required full assessment activities per type of affected community.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Timing</th>
<th>Directly affected</th>
<th>Indirectly affected</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify there is FPIC to conduct the assessment and that communities’</td>
<td>Before initiating any activity with the community.</td>
<td>Yes</td>
<td>Yes</td>
<td>Discuss their right to say no at any point of the assessment. Representatives may help identify sub-groups, coordinate and (sometimes) join the field work and may be designated as spoke-persons.</td>
</tr>
<tr>
<td>representatives were self-chosen.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain the HCV-HCSA assessment (objectives and activities).</td>
<td>After confirming FPIC was granted and before any activity in the</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>community.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verify the status of the social studies (SBS, LT&amp;US).</td>
<td>For some communities, this may have been done during the scoping study visit.</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Validate the preliminary participatory mapping results produced during</td>
<td>For a sample of communities, this was done during the scoping study.</td>
<td>Yes</td>
<td>No</td>
<td>Recent, good quality preliminary participatory maps should be used as the basis for the more detailed participatory mapping exercise during the assessment.</td>
</tr>
<tr>
<td>the LT&amp;US.</td>
<td>For the rest, this must be done before initiating the assessment’s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>participatory mapping.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>During the full assessment, ideally before the environmental studies.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

hcvnetwork.org
Table 2 – Required full assessment activities per type of affected community.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Timing</th>
<th>Directly affected</th>
<th>Indirectly affected</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews, focus groups, reconnaissance, and other methods to collect information.</td>
<td>Full assessment</td>
<td>Yes</td>
<td>Yes</td>
<td>Key to collect information from indirectly affected communities about their HCVs likely to be affected by the potential development. Also important as follow up to participatory mapping with directly affected communities, if some subgroups were not able to participate/did not speak during participatory mapping.</td>
</tr>
<tr>
<td>Final consultation (see section 1.3.4)</td>
<td>After all information has been collected, analysed and the results synthesised to be presented and discussed, using materials clear and easy to understand (including preliminary maps of HCV areas and management areas, other areas of current use, HCS Forest, peatlands, etc, as applicable).</td>
<td>Yes</td>
<td>Yes</td>
<td>All questions, suggestions and responses from the assessment team must be documented.</td>
</tr>
</tbody>
</table>
Subgroups in each affected community

Activities must be conducted in each affected community including all subgroups within the community, as applicable. Subgroups may be determined by several factors, including gender, age, ethnicity, origin, economic status and activities, organisations, power, and religion.

Each of these subgroups may have specific social and economic practices and associated knowledge, hence their basic needs (current and future) as well as the mechanisms to satisfy them, may be different from those of the rest of the community. This is why it is important to identify each of these sub-groups and involve them in the assessment, creating the conditions needed to ensure their meaningful participation.

Identification of subgroups can be done using primary information collected during the scoping study (for example through interviews/meetings with community representatives, organisation leaders, social experts from academia and/or social NGOs) or through a review of published secondary data, both from independent sources and those produced by the Organisation in line with HCSA Social Requirements (SBS, LT&US, SEIA, etc).

Sub-groups within the affected communities are entitled to grant or withdraw FPIC and to choose their representatives and mechanisms of engagement during the assessment activities.

If the assessment team finds during fieldwork that some sub-group(s) were not identified during the pre-assessment, activities must be reorganised to ensure they are involved as relevant and that conditions to ensure their participation are created.

Important steps to consider throughout the social field studies

- Verifying and gathering evidence (triangulation) that there is FPIC to conduct the assessment and adequately informing all affected communities about the scope of the HCV-HCSA assessment, including all planned field activities, information exchanges and consultations. Affected communities that were involved in the scoping study would already have been informed and granted FPIC to the assessment, but

Box 1: Participatory mapping

While many different methods and techniques may be needed during the social fieldwork, participatory mapping is the only method required to be used in the HCV-HCSA assessment for the identification of Social HCVs (4, 5 and 6) and other current community land use and to inform the discussion of future land and resource needs.

The team should produce pre-printed maps for each affected community, layered with the satellite image and other information (i.e. preliminary participatory mapping results, community boundaries from LT&U study). Ideally these initial maps would have been created with the communities’ members (at least for those communities visited during the scoping study) and should be of an adequate scale to allow for detailed participatory mapping.

These initial maps will then be filled in with information on all attributes and current land use information, involving in the process at least some representatives / delegates appointed by each of the subgroups identified.

The mapping work done manually by the communities’ members will then be transferred to a GIS format by the assessment team and will be presented back to the entire affected community for comment and corrections, providing a picture or the original sketch map to be compared with the digitised map. Participatory mapping must be GIS-based so that the maps can be overlaid with other assessment results. Participatory mapping is recommended for all affected community lands and not just those areas that overlap directly with the assessment area, as this will provide a more comprehensive picture of resource ownership and use, and thereby a better understanding of the impact of the development on the entire community (i.e., how dependent communities are on the assessment area).
project or asked to provide their documented consent to the full assessment. In such cases, the assessor must halt all assessment activities in the area corresponding to the potentially affected community. The area corresponding to that community will become part of the wider landscape and will be explicitly identified in maps as “not-assessed”.

- Respecting mechanisms agreed for consultation and engagement with affected communities.
- Always respecting the decisions of the affected communities; this may include the decision, at any point in time, to withdraw their consent to the conduct of the assessment.
- Using all resources collected during the previous stages to support the social studies: this includes the land cover map, but most importantly, the digitised preliminary participatory mapping results and information on community boundaries (extracted from the LT&U study), which should be used as the starting point for refining/expanding the information through the participatory mapping exercise.
- If during the scoping or the full assessment the directly affected communities share pre-existing participatory mapping results and community planning information developed independently from the Organisation’s activities, this information must be used to adapt the scope of the field studies (what information needs to be collected), to recognise the pre-existing community identification processes and avoid duplicating efforts.
- Assessing future land and resource needs for securing livelihoods: participatory mapping is the main process that must be used to document with the affected community current land and resource use (including swidden areas) and based on it, to discuss the quality, extent and location of lands which need to be allocated for future livelihoods and to map these whenever possible. To inform this discussion, the assessment team must share and seek to validate with the community members summaries of relevant information previously collected from secondary sources (or from primary sources contacted during the scoping study) including (but not limited to) the following topics:
  - Food security and other basic needs (current and future) and their link to availability of land/resources as documented through the preliminary participatory mapping exercise conducted during the Land Tenure and Use Study; this includes discussing 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.
  - Population growth and trends (including migration) and how it will affect demand for resources.
  - Regional development plans and policies and how they may impact (positively or negatively) the affected communities, including any regulations that have specified a certain allocation to local communities.
  - The expected forms and scale of likely positive and negative economic impacts of the potential development, such as employment and other opportunities that may affect the amount of land required for food security and basic needs, or potential negative impacts on water quality and availability, or impacts on local food economy and agricultural production, including the substitution of food crops with market produce, and any increased pressure on food sources as a result of inward migration.
  - Substitution of food crops with market produce, or cash crops.
  - 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 potential development.

Other methods such as focus groups, seasonal calendars, and ranking exercises – may be used,
particularly to gain understanding of different needs per different sub-groups by collecting information from their members.

1.3.1.1.2 Environmental Field Work

Purpose

The purpose of field studies is to collect information from the AOI about their environmental HCVs and/or HCS Forest and to evaluate how these could be affected by the Organisations’ potential development, and what measures should be in place to mitigate and monitor these impacts.

Specifically, environmental field work must:

- Identify HCS Forest (see HCSA Toolkit V2, Module 4).
- Identify rare, threatened, or endangered species and ecosystems (HCV 1 and 3 as defined by National Interpretations and/or the Common Guidance).
- Evaluate whether Intact Forest Landscapes or other large landscape-level ecosystems or ecosystem mosaics are present (HCV 2) as defined by National Interpretations and/or the Common Guidance.
- Identify different areas providing regulating and supporting ecosystem services (HCV 4) as defined by National Interpretations and/or the Common Guidance (see the social section, Table 1).
- Verify peat land.

1.3.1.1.2.a HCS Stratification and Carbon Stock Assessment

There are 3 options to identify HCS Forest (option 1 being the most accurate and option 3 being the least accurate):

- Option 1: Using a full-coverage airborne Light Detection and Ranging (LiDAR) data set, calibrated through LiDAR AGB (above ground biomass) calibration plots.
- Option 2: If the acquisition of full-coverage LiDAR data is not feasible, using a combination of LiDAR AGB calibration plots and LiDAR transects samples. Requirements for using LiDAR AGB calibration plots (applies only if the Option 1 and 2 are chosen) are outlined in HCSA Toolkit V2 Module 4 Section C. Technical requirements for the Airborne LiDAR data are outlined in HCSA Toolkit V2 (Module 4 page 11). Option 3: Using forest inventory plots.

All options require the final land cover map produced from the interpretation of the satellite images. More detailed guidance on using field plots to estimate carbon stock (covering all the 3 options) can be found in the HCSA Toolkit V2 (Module 4 Section C), and depending on the option chosen, the assessor should follow the corresponding section of the guidance including sections on sampling design guidelines to achieve the number of plots necessary to produce the results needed for the statistical analysis.

1.3.1.1.2.b Identification of HCVs 1-4

The assessment team must seek to collect enough information in the field (in addition to collected secondary information) to justify a clear decision supported by evidence on presence, potential presence, or absence of HCVs (referring to, at least, all attributes listed in Table 3). Where information is insufficient, the team must apply the precautionary approach.
### Table 3 – Environmental HCV Attributes required to be identified

<table>
<thead>
<tr>
<th>HCV 1 Species Diversity</th>
<th>HCV 2 Landscape-level ecosystems, ecosystem mosaics and IFL</th>
<th>HCV6 Ecosystems and habitats</th>
</tr>
</thead>
</table>
| • High overall species richness, diversity, or uniqueness.  
• Populations of multiple endemic or RTE species.  
• Important populations or a great abundance of individual endemic or RTE species.  
• Small populations of individual endemic or RTE species, critically dependent on the area (EN or CR on the IUCN Red List).  
• Sites with significant RTE species richness, or populations (including temporary concentrations).  
• Particularly important genetic variants, subspecies or varieties. | • Large landscape-level ecosystems, ecosystem mosaics that are relatively far from human settlements, roads, or other access.  
• Intact Forest Landscapes  
• Smaller areas that provide key landscape functions such as connectivity and buffering and which have a role in maintaining larger areas in the wider landscape.  
• Large areas that are more natural and intact than most other such areas and which provide habitats of top predators or species with large range requirements.  
• Areas that contain viable populations of the great majority of the naturally occurring species.  
• Ecosystems that contain important sub-populations of wide-ranging species. | • Ecosystems that are naturally rare because they depend on highly localised soil types, locations, hydrology or other climatic or physical features.  
• Ecosystems that are anthropogenically rare, because the extent of the ecosystem has been greatly reduced by human activities compared to their historic extent.  
• Ecosystems that are threatened or endangered (e.g., rapidly declining) due to current or potential operations.  
• Ecosystems that are classified as threatened in national or international systems (such as the IUCN Red List of Ecosystems). |
To collect information, field survey (in the order of importance) shall be conducted in:

- Areas where HCVs may be present i.e., in land cover classes such as scrubs, thicket, mixed garden/rubber, etc. The main objective of surveying these areas is to gather evidence whether HCVs presence can be ruled out or not. Precautionary approach must be applied where the collected data is not conclusive.
- Areas where HCVs may not be present, i.e., in the land cover classes, plantation, agriculture, open land. The main objective of surveying these areas is to confirm whether HCVs are indeed absent or not.
- Areas where there are strong indications of HCV presence i.e., certain land cover classes, various forest types, wetlands, waterbodies, etc. Following the precautionary approach, these areas are designated as relevant HCV areas. The main objective of surveying these areas is to assess the suitable management and monitoring measures needed to maintain or enhance the HCVs.

A Rapid Biodiversity Assessment (RBA) can be used in both flora and fauna survey.

“Handbook for conserving HCV species and habitats within oil palm landscapes (2018)” with the following: A practical toolkit for identifying and monitoring biodiversity in oil palm landscapes (2013)

Flora and vegetation survey (terrestrial)

Vegetation surveys can be conducted in parallel with forest inventory plot and fauna survey – depending on the logistics and planning. A vegetation inventory must be produced at the end of the survey activities. Secondary data on species potentially present in the assessment area can be extracted from field guides, IUCN Red List, the Organisation’s ESIA, and recent findings from scientific journals.

Fauna survey (terrestrial)

Depending on the characteristics of the assessment area and its wider landscape, it is likely that specific surveys will be conducted for different taxa (e.g., birds, non-flying mammals and bats, herpetofauna), and for some, surveys can be conducted in different seasons for data comparison.

Secondary data such as from field guides, IUCN Red List, the Organisation’s ESIA, recent findings from scientific journals, could assist the identification and verification on HCV species within the assessment area. It is recommended the assessment team consults community groups with knowledge of the area about species likely to be present by using pictorial guides and the final land cover map. The local guide or community representatives can accompany the assessment team to show locations of species and their habitat.

Aquatic survey (recommended)

Knowledge of HCVs in aquatic (freshwater and marine) ecosystems is much less developed than in terrestrial ecosystems. An aquatic ecological survey may be needed to perform fish and benthic macroinvertebrates surveys, including habitat assessments in the aquatic ecosystems. RTE species data for some aquatic species can be extracted from IUCN Red List and national protected species data.

Peat verification (when applicable)

Based on credible secondary information collected in previous stages (either a peat study conducted by the Organisation or publicly available information on peat soils), the assessor will have determined whether peat verification is needed in the assessment area.

In such cases, the assessor should verify the results of the soil/peat study (if available), and/or peat data from best publicly available secondary data/information (if no soil/peat study is available).

Verification should be conducted in sample locations both on organic soil and mineral soil (identified in the soil/peat study, and/or indicated in the referred secondary data), i.e., using soil sampling / peat auger equipment.
Sample locations (GPS coordinates), photos of the soil profile taken should be documented (as this will serve as evidence for justification in the reporting).

### 1.3.2. What information is collected/produced?

During and right after finishing the field studies (social and environmental) the assessment team reviews the biological, ecological, and social data (primary and secondary) to carry out the preliminary identification of HCVs and HCS Forest so these results can be discussed with other relevant stakeholders (in interviews, focus group discussions, etc.).

**Social and environmental field studies results**

- Location of affected communities and their lands and resource use area (either formally titled or customary)
- Sites providing ecosystem services (HCV 4) of critical importance to the affected communities.
- Sites and resources of critical importance to satisfy basic needs (HCV 5) including, but not limited to:
  - Water sources used for household purposes and fishing.
  - Hunting territories
  - Sites of important NTFP collection (for diverse purposes including food, construction, medicinal, etc)
  - Sites of importance for providing fodder/grazing area to livestock or fuel sources.
- Historic, cultural, or sacred sites (e.g., graves, ruins of former communities or settlements, ceremonial sites, sacred groves, waterfalls) or resources important for cultural/celebrational practices (HCV 6)
- Currently used land including ‘swidden’ areas.
- Land needs for future food security/livelihoods/basic needs.
- Vegetation inventory.
- Presence/absence of different faunal species.
- Final maps identifying all areas described above as applicable. Maps may also identify lands for future use and community lands that must be excluded from HCS Forest classification and/or project development.

**Preliminary management and monitoring recommendations.**

The assessment team must produce a set of management recommendations aimed at maintaining/enhancing the social and environmental values identified during the assessment, along with monitoring recommendations so that the Organisation can develop its management and monitoring plan based on those recommendations.

Discussions with all stakeholders, affected communities (if applicable) and the Organisation’s staff are crucial to propose sensible management and monitoring recommendations. These discussions may take place throughout the entire assessment, **but it is required that preliminary management and monitoring recommendations have been drafted before the final consultation.**

The first and most critical management recommendation concerns the designation of HCS Forest and HCV Management areas, that is, the area inside the Assessment Area where modified standard operation procedures and or best practices are required to protect/actively maintain the HCVs identified. HCS Forest and HCV Management areas will always include the sites where these were found but may often be larger than the HCS Forest/HCV area where a value occurs. For example, the management area for an endangered species could include nesting and feeding areas and a buffer around them to protect them.

To provide sound management recommendations, the assessor must:

- Document the risk and threats to the values (current and likely to be caused by the potential development).
- Understand and refer to HCV areas, HCS Forest areas and their required management areas.
- Understand the conditions necessary to maintain social and environmental values over time.
- Provide recommendations specific to the values identified in the AOI, although the assessor is not expected to present detailed management objectives and targets as would be elaborated in a full HCV and
HCS Forest management plan.
• Link management recommendations to maps showing the location of values (HCV area) and the recommended management area.
• Share enough information with the affected communities (if applicable) and other stakeholders during all consultations, to ensure their meaningful participation/contribution to the drafting of the management and monitoring recommendations.

Monitoring recommendations follow on from the overall management goals. If the aim of management is to maintain values over time, then the goal of monitoring is to track and measure whether the management goals are being met, but also whether planned management activities are being implemented, and with what results.

1.3.1.2 Final consultation of the preliminary findings

Though consultation, in some form, has taken place throughout the assessment (e.g., consultation during participatory mapping, consultation with experts to discuss results of field studies), the final stakeholder consultation is an opportunity to:

• Discuss the evidence-based assessment results related to HCVs 1, 2, 3, HCS Forest and peat, including the location of HCS Forest and HCV areas (and peat, if applicable).
• Validate with the affected communities the information collated about HCVs 4, 5 and 6 and about local people’s lands, to make sure it represents their views.
• Provide the communities and other stakeholders with full information on the HCV and HCS Forest management recommendations, including the considerations for the delineation of recommended HCV and HCS Forest management areas.
• Gather evidence of stakeholders’ recommendations and concerns as shared during the final consultation and include them in the final discussion of findings.

The final consultation of the draft assessment results with stakeholders can be done through consultati-
munity use or access if HCV 4, 5 or 6 areas are also designated as HCV 1-3 areas.
• Limitations, concerns, or issues (with assessment process, findings, MU areas excised from the assessment area and why, etc.)
• Draft maps showing potential conservation areas (e.g., HCV, HCS Forest, peatland), potential development areas and community land use areas.

1.3.1.3 Analysis

Analysis of the information collected or produced during the HCV-HCSA assessment and reporting must follow the key principles described above: meeting minimum preconditions, FPIC, consideration of risk to HCVs and/or HCS Forest, precautionary approach, wider landscape consideration, proportionality, and practicality of HCV and HCS Forest management and monitoring recommendations, significance, criticality, and independence from land planning decisions.

Analysis of the data collected, and secondary data sources will be qualitative and quantitative.

Qualitative Analysis

The collection and interpretation of data (primary and secondary) provides evidence that supports the identification and designation of HCVs.

The data collected must be analysed and a proper description should be provided.

Assessor must reach conclusions drawing on existing information (including large-scale maps of HCVs and HCS Forest) and data collected, such as hydrological functions for HCV4, distribution ranges of RTE species for HCV 1, connectivity to forested landscapes for HCV 2, rarity assessment for HCV 3.

Quantitative Analysis

Quantitative analysis may be made and provided in addition to the qualitative analysis. For the analysis of the collected biodiversity data, Assessor may consider following the recommendations as provided in HCSA Toolkit V2 Module 4 Appendix 2: Additional biodiversity analysis tools.
This section covers the following content:

- Report evaluation process.
- Reports accepted for quality assurance.
- Transparency.
- The assessment report: a baseline for management and monitoring of HCVs and HCS Forests.
- Reporting: quality.
- Reporting: content.

### 2.1 Report evaluation process

Reports submitted for evaluation to HCVN are processed according to the Terms and Conditions of the HCV Assessor Licensing Scheme, the ALS Specification and relevant procedures.

A report is marked satisfactory when all its Key Issue sections (those covering topics fundamental to producing a good quality report that adheres to the HCV and HCS approaches) are marked “satisfactory”.

Reports that do not comply with any of the requirements of content and quality of analysis for Key Issue sections will be marked “unsatisfactory.”

Reports may be revised twice to correct any outstanding major requirements (those related to issues affecting designation or delineation of areas for HCVs, HCS Forest and peat) for key issue sections while additional unlimited revisions are allowed for minor requirements.

### 2.2 Reports accepted for quality assurance

HCVN accepts any HCV-HCSA assessment reports provided they met the assessment and reporting requirements at the time of submission\(^{33}\).

Reports older than 2 years from the time of the final consultation must recommend the Organisation validates the outcomes with the affected communities (if any) before implementation.

Reports presenting results for more than one continuous assessment area will be accepted only if they follow the procedure for HCV and HCV-HCSA standard and multiple management unit assessments reporting. This procedure also states the maximum number of pages allowed per type of report.

### 2.3 Transparency

HCVN conducts desk-based quality assurance of assessment reports. All information about the evaluation process (the different stages of a report evaluation) and outcomes is published on the HCVN website\(^{34}\).

HCVN does not have a mechanism to oversee the assessment process, hence a sworn statement from the lead assessor is required to confirm the assessment process requirements have been met. The statement will be public (see below: sworn declaration).

HCVN will document feedback from the public on the conduct of assessments, and when evidence is provided, false declarations will be disclosed along with other report documentation (for example, a published report). False declarations lead to cancellation of the ALS licence.

Satisfactory reports (the entire report package) are publicly shared, unless there are good reasons for redacting some content in the report (see below: Redaction)

#### 2.3.1 Sworn declaration

HCVN will only evaluate reports where the lead assessor provides a sworn declaration that during the assessment conflict of interest (COI) was avoided or managed, preconditions were verified, and the team composition followed requirements at the time.

This declaration is made by completing an online form...
when uploading the report and will be shared with the public through the HCVN website. Indicative content for the online form at the time of publication of this manual can be found in Annex 1.

The topics covered in the sworn declaration are:

- Conflict of interest (COI) in conducting this assessment, and how it was managed (if applicable)
- Team composition: meeting the requirements at the time of the assessment.
- Preconditions
- Verification of the Organisation’s legal rights over or permission to assess the assessment area(s) - AA(s) in their entirety. The report does not include any area where the Organisation has no rights/permission.
- Verification that no land clearing took place in the AA since the Organisation became responsible for the area, including during the assessment. If land clearing occurred, this is documented in the report, which includes recommendation for the Organisation to disclose the land clearing as applicable (i.e., to the relevant certification scheme, authority, buyers, etc)
- Where there are affected communities, these have given FPIC and participated in the assessment. The report does not include any area owned/used by directly affected communities that did not consent to/participate in the assessment. This applies also to directly affected communities with ongoing land conflict/disputes, which must be excluded unless all parties in the conflict agree the assessment may proceed.

2.3.2 Redaction

Satisfactory report packages (the full report document and all its annexes and supplementary materials) are published on the HCVN website.

When submitting the report for the first time, the assessor may include a statement requesting some contents (in the report or some annexes/supplementary materials) are redacted (obscured/removed) before publication. Sections or annexes proposed to be redacted must be clearly indicated (highlighted), so HCVN can remove/obscure them.

Redactions will likely follow requests by the Organisation or some stakeholder(s) involved in the assessment process.

The only redactions allowed concern contents that cannot be disclosed due to legal reasons, risk to the information sources or risk to the HCVs and/or HCS Forests.

Information available in the public domain will not be redacted from reports.

2.4 The assessment report: a baseline for management and monitoring of HCVs and HCS Forests

Published HCV-HCSA assessment reports reflect the conditions at the time of assessment and hence should be considered a baseline for the Organisation’s management and monitoring of HCVs and HCS Forests.

Because identification of values may be affected by the level of effort of the assessment, the time when it was conducted and the participants in the assessment process, this baseline may be expanded to add values which may have not been identified during the assessment for the reasons mentioned (or others). Additional values may typically be identified through the implementation of generic management and monitoring activities including citizen science (engaging affected communities and the Organisation’s field staff), certification audits (if the development is conducted under certification requirements) or use of camera traps for monitoring, among others.

The Organisation’s HCV and HCS Forest management plan must seek to avoid changes that constitute degradation of destruction of the values found. In some scenarios Organisations may even seek to actively enhance the values and HCS Forest.

Nevertheless, over time, changes in the extent and
condition of the HCVs and HCS Forests identified in the report may happen due to varied reasons.

The published HCV-HCSA assessment reports are not the right document to present any such changes taking place after the assessment was completed, so requests to “update” or “revise” them will not be accepted.

The best tool for documenting any changes in HCVs and HCS Forests (degradation, destruction or enhancement) is the Organisation’s monitoring plan and associated reporting, which should be designed for collecting enough credible information about changes in the condition of the values found, changes in the threats affecting them, and about the Organisation’s management practices and their results/outcomes.

2.5 Reporting: Quality

Overall quality of the assessment report depends on the quality of the data collected and on the quality of data analysis and interpretation.

It is expected that during the field assessment, the assessment team has applied the principles and concepts relevant to HCV-HCSA assessments mentioned in Part one.

Some of those principles must be applied also when analysing the data collected and presenting the conclusions in the report.

Principles applicable during reporting include:

Precautionary approach

- When credible primary or secondary data indicates an HCV and/or HCS Forest is present, the assessor must declare it present, unless he provides credible and strong justification to declare absence.
- When seasonality or other limitations of the assessment did not allow to confirm presence of values known to be found in the area of interest (migratory species, transhumant communities) the values must be declared (at least) potentially present, their likely location must be mapped and the recommendations for the Organisation must state findings related to this value are pending evidence-based validation.
  - The report must disclose the limitations of the assessment and how these were managed (i.e. by applying the precautionary approach)

Consistency

- The interpretation and conclusions must be consistent with the evidence (primary data collected) and with credible secondary sources.
- Interpretation must be applied consistently to all the data collected and presented throughout the entire report.

Relevance of secondary sources

- Secondary sources used to provide context and inform decisions must be carefully chosen for their relevance to the assessment; the latest version of a document must always be used as reference.
- Use of secondary sources older than three years must always be justified, and their validity must be verified.

Proportionality and practicality of HCV and HCS Forest management and monitoring recommendations.

Measures to protect and/or enhance the identified values and forest patches must:

- reflect on the vulnerability of the values and forest patches,
- consider the level of risk posed by the potential development and other threats,
- consider feasibility and cost-effectiveness of the M&M measures.

Independence from land planning decisions

- The assessor must analyse the data and present the assessment’s conclusions independently of any plans or expectations from stakeholders and interested parties (this includes the assessor’s client)
• The results of an HCV-HCSA assessment are not equivalent to a decision on land use but are expected to be used in decision-making by the rights-holders.

2.6 Reporting: Required content for HCV-HCSA Assessment reports

The structure of the HCV-HCSA template is provided in Annex 2. This subsection presents in detail the required content for each section in the HCV-HCSA assessment report template.

Cover page

• Date contract for the assessment was signed.
• Assessment start date (month/year)
• Date of report submission (or resubmission) to ALS
• Name of ALS lead assessor
• Name of team member registered as HCSA practitioner.
• Contact information of lead assessor (Organisation or institution, address, email)
• Contact information of Organisation commissioning the HCV assessment (name, address, email)

1. Purpose of the assessment

• Overview of the purpose of the assessment (e.g., to comply with certification scheme requirements, to comply with NDPE commitment, etc.)
• Description of the current or potential development and its present situation (e.g., forestry or agriculture) specifying if it is a new development or expansion or rehabilitation of existing agricultural land
• Statement on type of lease or ownership arrangement
• Statement on the proposed start date of production activities
• Statement on potential extent and dates of conversion or clearing (if applicable)

2. Location of the assessment – KEY ISSUE

• Description of the geographical location of the management unit(s), including name, location, and coordinates
• Map showing where the management unit(s) within the country (i.e., location in relation to the whole country)

3. Overview of the Organisation commissioning the assessment

• Type of Organisation
• Information on the Organisation’s other developments in the country or region
• Information on whether the Organisation is a member of a certification scheme or in the process of joining one.
• Information on whether the management unit(s) / commodity is/are already certified.
• Information on whether the Organisation is a subsidiary of a certified company.
• Information on whether the Organisation been the object of any complaints or campaigns.

4. Assessment Timeline and team

• Detailed assessment timeline (including pre-assessment, scoping study and full assessment) clearly showing time in the field including dates, duration and location of field activities.
• Timing of any other related major assessments such as social background study, land tenure and use study, peat study, ESIA etc.
• Explanation on how the HCV-HCSA assessment was coordinated or combined with other studies or assessments if relevant.
• Assessment Team
  • Table including the licensed ALS lead assessor, the second HCSA registered practitioner and other experts (environmental, social and geospatial)

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36 Must be an HCVN ALS licensed assessor and registered HCSA practitioner from the time the assessment contract was signed.
37 This person will receive the updates on the report evaluation status.
5. Description of the AOI – KEY ISSUE

• Description of the assessment area (AA)
• Statement on whether the MU and the AA are the same or not, with brief explanation if different.
• Description of the Area of Interest (AOI): (assessment area + wider landscape)
  • option(s) used to define the AOI with brief justification (why other options are not relevant)
  • map showing the layers relevant to the option chosen.
• If applicable: list of all affected communities relevant to the assessment including name and type (directly or indirectly affected) and map of the AOI showing their location (centre point and boundaries where this information is available).
• Map of the AOI showing:
  • the management unit(s) and the assessment area(s) (if not the same as the MU(s)
  • the boundaries of the AOI
  • the final landcover layer (following the final land cover classification section)
• Map of the AOI layered with the satellite image at the time of the assessment.
• Map of the AOI layered with the satellite image at the time when the Organisation acquired the land/ license/permit.
• Map of the AOI layered with the satellite image at the time of the cut-off dates of the certification scheme/commitments (only if applicable).

6. Land cover classification – KEY ISSUE

Preliminary land cover classification: Image Acquisition

• Description of how the following image requirements are met:
  • No older than 12 months since the commencement of the assessment process.
  • Have a minimum 10 meter of resolution.
• Have less than 5% of cloud cover within the AOI
• If requirements are not met, justification on the alternative used to acquire an acceptable image. If lower resolution images are used as ancillary information (including resampling of the images to a 10-meter resolution), state this was done, the reason why and provide the description of processing (and resampling, if applicable).
• Information about the acquired image(s): exact dates of when images are acquired, sources, and image bands used, including details on the sensor and platform used. Depending on the source of the image(s), the assessor must state the images' file names and ID.
• If using Google Earth Engine to produce a high-quality image with minimal cloud cover within an acceptable time span, the assessor must include an explanation of the acquisition process by sharing the acquisition code as an annex linked to the report section.

Image Pre-processing

• Description and/or explanation of pre-processing steps.
• If there are images that have already been pre-processed, include description of the source and how pre-processed images were acquired.

Image processing: Object-based land cover classification

• Description of the object-based classification undertaken to produce the preliminary land cover classification. This includes:
  • details on segmentation, classification algorithms (un-/supervised classification) and calibration (incorporation of ancillary information).
  • software used to conduct segmentation and classification.
  • definition of land cover classes used in classification.
• Map of the AOI showing segments
• Explanation on how the assessor moves from segmentation to classification.
• An illustration / zoomed-in snippet of how each class is represented by a particular segment of the satellite image with explanation.
• Justification of utilization of other images to complement the land cover classification process (if any), including how the additional images were used to enhance the quality of the preliminary land cover classification.

Accuracy assessment of the preliminary land cover classification

• Explanation of the accuracy assessment process for the preliminary land cover classification including the method of generating sample points for accuracy assessment, justification of the number of samples used and source of any high-resolution imagery used to verify the preliminary land cover classification.
• Map showing the sample points used during the accuracy assessment process for preliminary land cover classification.
• Confusion matrix table and explanation regarding the numbers represented. If the first accuracy assessment shows under 70% Producer’s and/or User’s Accuracy, explain the process carried out to achieve the minimum 70% (e.g., increasing sample points, reclassification, etc.).
• Map of the preliminary land cover classification including the accuracy assessment with a minimum 70% Producer’s and User’s Accuracy.

Final land cover classification

• Explanation illustrating how field data was gathered (including how many samples were used for ground-truthing, how the ground-truthing data was gathered, etc.)
• Explanation on how the ground-truthing data was used to make the final land cover map from the preliminary land cover map.
• Map showing the sample (of ground-truthing points).
• Description and result of the accuracy assessment with at least 80% of Producer’s and User’s Accuracy, using the confusion matrix, and covering all the land cover classes used in the final land cover map.
• Explanation of the numbers represented in the confusion matrix table.
• Photos/images taken during the ground-truthing activities, linked to the ground-truthing locations (in an Annex), presented in a table as shown below.
• Description (qualitative factors - see HCSA Advice Note 1) and indicative photos characterising the land cover classes used in the final land cover map, presented in a table as shown below.
• Description of the relation and comparison/cross-reference between the land cover classification system and HCS land cover category used, presented in a table as shown below.

<table>
<thead>
<tr>
<th>Land cover class</th>
<th>Description of the land cover class</th>
<th>Comparison to HCS land cover category</th>
</tr>
</thead>
<tbody>
<tr>
<td>A specific HCS land cover category equivalent to the land cover class.</td>
<td>The description of the land cover class.</td>
<td>A specific HCS land cover category equivalent to the land cover class.</td>
</tr>
</tbody>
</table>

Additional provisions

• If some land cover classes used in the final land cover map were not ground-truthed:
  • A justification must be provided (i.e., the land cover class only occurs in the wider landscape or affected local/indigenous communities do not give consent to access, or access is physically difficult or dangerous) explaining why ground-truthing was not possible. See also HCSA Advice note 4.
  • The preliminary land cover classification is used in the final landcover classification, and this must be noted in the final land cover classification section\(^{38}\).
  • If clearance of potential HCS Forest or HCV area is detected in the AA(s) during the assessment:
    • a statement that land clearing has been detected is included.

\(^{38}\) This is only applicable in any of the following three scenarios:
• the landcover types that have been cleared are identified.
• the sites within the AA(s) where this happened are mapped (delineated and labelled) as part of the land cover classification (see HCSA Advice Note 6).

7. HCS Forest, Peat and Environmental HCVS

7.1 HCS Forest – KEY ISSUE

• For assessments using options 1 or 2 to identify HCS Forest (see Part 1)
  • Information required in the HCSA Toolkit V2 Module 4 Section C
  • Description of how technical requirements for Airborne LiDAR data (HCSA Toolkit V2 Module 4 page 11) are met.
  • For assessments using Option 3 (using forest inventory plots):
  1. Methodology and sampling plan:
    • Calculation of the target/estimated number of plots, following HCSA Toolkit Module 4 and HCSA Advice Note 3
    • Relevant data for sampling (such as means and standard deviation – each for Forest, YRF, and Scrub).
    • Justification if the minimum number of plots (according to the HCS plot calculation, see HCS Toolkit Module 4 and Advice Note 3) was not reached, or if significant difference among forest classes was not proven. A fewer number of plots is only acceptable in small areas (less than 100 ha of potential HCS Forest), or in forest classes higher than YRF.
    • Justification if the assessor combines AGB measurement of the LDF/MDF/HDF strata into a single forest stratum.
    • If applicable: clear and reasonable justification to include plots located outside the AOI in the analysis (why some plots could not be located within the assessment area(s) and AOI).

2. Statistical Analysis of the field data collected:

• Tables with basal area, canopy cover, ground cover, stems/ha, % pioneer stems, etc. (in the Annex)
• Evidence that there is statistical difference between the higher quality forest (HDF/MDF/LDF), YRF and Scrub strata, at a minimum.
• Evidence and justification that YRF forest and above (HDF/MDF/LDF) have been correctly identified for conservation, even if the plot data does not provide statistically significant distinctions between those forest classes.
• Other provisions for some circumstances outlined by HCSA Advice Note 3 must be followed.
• Proof of significant difference (using ANOVA and then the Scheffé test) among at least the following three HCS land cover classes: at least one higher quality forest class (i.e., with HDF, MDF, LDF combined, or all left separate), YRF, and Scrub, or else providing adequate justification for why this could not be achieved.
• For agroforestry land cover (often also labelled as jungle/mixed rubber), or other land cover with introduced tree species: basal area percentages of introduced species are calculated and explained for the applicable plots (See HCS Advice Note 3): forest inventory plots with introduced species comprising 50% or more of the basal area have been categorized as ‘Other’ or ‘SH’ under the non-HCS land cover categories. Forest inventory plots with less than 50% of the basal area comprised by introduced species have been categorized as YRF, LDF, MDF or HDF.

3. Results:

• The AGB and carbon calculations within the plots, including all the equations/formula used.
• Table with HCS Forest inventory results, displaying the following:
  • The Above Ground Carbon (AGC) stock estimates for each stratum: Scrub, YRF, and LDF/MDF/HDF (or combined), expressed in tonne Carbon per ha.
  • Area calculation (in hectares) for all HCS Land Cover Categories, including HCS Forest class i.e. YRF, HDF/MDF/LDF (or combined), and non-HCS areas – including Scrub, Open Land, and other non-HCS land cover categories.
• Estimated total AGC of the entire HCS Forests identified (YRF, LDF, MDF, HDF, each separately provided or combined) expressed in tonne Carbon. This estimated number is the product of the calculated hectarage area (of each HCS Forest class or combined) multiplied by the estimated AGC of the HCS Forest class (in tonne Carbon per ha).

Option 1 (LDF, MDF, HDF are presented separately):

<table>
<thead>
<tr>
<th>HCS Land Cover Categories</th>
<th>Hectarage (ha)</th>
<th>AGC (tC/ha)</th>
<th>Estimated Total AGC (tC)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>MDF</td>
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<td>Open land</td>
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<td>Other non-HCS Land cover categories</td>
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<td>Total</td>
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</table>

Grey cells indicate the required information to be provided in the table.

• HCS Forest/vegetation stratification Map and the discussion explaining the map and findings.
• Description of stratum (technical description and photographs) used in the map.

7.2 Peat – KEY ISSUE

• Background information on whether there is a soil study available or not.
• If the Organisation has produced a soil study:
  • Soil map (or link to the map if provided in other section) highlighting the various soil type/association categorising them into organic soil/histosols (including peat), and mineral soil.
  • Description of each soil type.
  • Explanation justified with evidence collected by the assessor, on any discrepancy regarding the extent of organic soil (including peat) between the soil study
and information from publicly available secondary data sources.

• If the Organisation has not produced a soil/peat study before the assessment:
  • Refer to relevant, credible secondary sources.
  • Include the results of conducting a soil/peat survey during the assessment (if there was sufficient capacity and expertise to do it).

7.3 HCV: Methods, Sources and Key Context Information – KEY ISSUE

• Description of literature review and use of secondary data (all listed in the reference section).
  • Discussion on data quality (e.g., detailed, recent, and complete enough) and limitations of all secondary data and justification for using it.
• Description and justification of methods and sample size for all studies\(^{39}\) conducted (or link to the section providing this information), linking to annexes where evidence of field work is provided.
• Map with sampling points/transects/sites for each type of field studies, overlaid on the final land cover classification map.
• Description of the limitations of the methods and sampling and brief statement on how the limitations affected the outcomes of the assessment and were managed.
• Brief description of AOI context relevant to HCV identification including
  • Physical and environmental characteristics (topography, climate, major landforms, geology and soils and hydrology).
  • Biological and ecological characteristics (biogeographic zones, ecosystem types, important biodiversity areas, occurrence of known populations of species of global concern, migration corridors, wetlands, peatlands, Intact Forest Landscapes (IFL), etc.
  • Presence and condition of protected areas, forest reserves.
  • Brief history of forest disturbance in the area, drivers of deforestation

• Map showing the assessment area relative to protected areas or conservation priority areas in the wider landscape.
• Map showing watershed boundaries, important rivers and other water bodies in the AOI.
• Map of final land cover classification (or link to the map in section above)

7.4 HCV1: Species Diversity – KEY ISSUE

• Conclusions related to presence, potential presence or absence of all HCV 1 attributes\(^{40}\) supported by evidence (i.e., literature review, fieldwork results, consultation).
  • High overall species richness, diversity or uniqueness
  • Populations of multiple endemic or RTE species
  • Important populations or a great abundance of individual endemic or RTE species
  • Small populations of individual endemic or RTE species, critically dependent on the area (EN or CR on the IUCN Red List)
  • Sites with significant RTE species richness, or populations (including temporary concentrations)
  • Particularly important genetic variants, subspecies or varieties
• If a value is deemed potentially present, evidence is weak, or results are uncertain:
  • a description on how the precautionary approach has been used, or
  • a detailed outline of what needs to be done to identify the HCV for certain.
• The size of the HCV area (hectares) must match the HCV area calculated according to the spatial analysis.
• HCV 1 area map for the entire AOI (assessment area(s) and wider landscape), showing where the HCV extends into the wider landscape. Draft maps must be clearly labelled.

\(^{39}\) Required: Forest inventories, floral/botanical surveys and faunal surveys. As relevant: aquatic surveys, interviews, etc.

\(^{40}\) See Common Guidance for the Identification of HCVs / National Interpretation on the qualification of HCV1.
7.5 HCV 2: Landscape-level ecosystems, ecosystem mosaics and IFL – KEY ISSUE

• Conclusions related to presence, potential presence or absence of all HCV 1 attributes supported by evidence (i.e., literature review, fieldwork results, consultation).
  • Large landscape-level ecosystems, ecosystem mosaics that are relatively far from human settlements, roads or other access.
  • Intact Forest Landscapes
  • Smaller areas that provide key landscape functions such as connectivity and buffering and which have a role in maintaining larger areas in the wider landscape.
  • Large areas that are more natural and intact than most other such areas and which provide habitats of top predators or species with large range requirements.
  • Areas that contain viable populations of the great majority of the naturally occurring species
  • Ecosystems that contain important sub-populations of wide-ranging species
• If a value is deemed potentially present, evidence is weak, or results are uncertain:
  • a description on how the precautionary approach has been used, or
  • a detailed outline of what needs to be done to identify the HCV for certain.
• Evidence based delineation of the HCV area (where the values are found) with links to the data collected and reflected in the maps (if/when applicable).
• The size of the HCV area (hectares) must match the HCV area calculated according to the spatial analysis.
• HCV 2 Map for the entire AOI (assessment area(s) and wider landscape) showing where the HCV extends into the wider landscape. Draft maps must be clearly labelled.


7.6 HCV 3: Ecosystems and habitats – KEY ISSUE

• Conclusions related to presence, potential presence or absence of all HCV 3 attributes supported by evidence (i.e., literature review, fieldwork results, consultation).
  • Ecosystems that are naturally rare because they depend on highly localised soil types, locations, hydrology or other climatic or physical features.
  • Ecosystems that are anthropogenically rare, because the extent of the ecosystem has been greatly reduced by human activities compared to their historic extent.
  • Ecosystems that are threatened or endangered (e.g., rapidly declining) due to current or potential operations.
  • Ecosystems that are classified as threatened in national or international systems (such as the IUCN Red List of Ecosystems).
• If a value is deemed potentially present, evidence is weak, or results are uncertain:
  • a description on how the precautionary approach has been used, or
  • a detailed outline of what needs to be done to identify the HCV for certain.
• Evidence based delineation of the HCV area (where the values are found) with links to the data collected and reflected in the maps (if/when applicable).
• The size of the HCV area (hectares) must match the HCV area calculated according to the spatial analysis.
• HCV 3 Map for the entire AOI (assessment area(s) and wider landscape), showing where the HCV extends into the wider landscape. Draft maps must be clearly labelled.

8. Social Values, Local people’s lands

8.1 Social methods, sources, context information and participatory mapping results – KEY ISSUE

• Description of literature review and use of secondary data (all listed in the reference section), Social Baseline Study and Land Tenure and Use Study (with...
• Discussion on validity of any data used that is older than three years and justification for using it.
• Description and justification\(^{43}\) (participation, representativeness) of methods for social field assessment and sample size\(^{44}\) for all studies\(^{45}\) conducted, linking to annexes where detailed methods and evidence of field work must be provided, including copies of interview guides, surveys, etc.
• Map showing the affected communities\(^{46}\) in the AOI, the boundaries of the management unit and of the assessment area (if different from MU boundaries) and the sites where participatory mapping and other social methods (transects, interviews, focus groups, etc.) were used to collect social data, overlaid on the land cover classification map.
• Description of how FPIC was considered when conducting social studies.
• Brief description of AOI context relevant to HCV identification including
  • Social, cultural and economic characteristics including ethnicity, socio-economic activities, religion, health, infrastructure, education, community organisations and customary rights to land and resources.
  • History of land use and development trends including future plans (e.g., road building), development initiatives and existing/potential commercial exploitation and production licenses
• Brief description of maps resulting from participatory mapping for each affected community overlapping with the assessment area
• Geo-referenced participatory maps produced identifying current land and resource use in the assessment area (or link to the maps in the sections below where these maps may be provided).

\(^{43}\) Include the list of all directly and indirectly affected communities (o link to the section where this is provided: Description of the AOI).

\(^{44}\) Note 100% of affected communities must be involved in the assessment. All directly affected communities must be involved in participatory mapping. Sampling within the affected communities must include all sub-groups.

\(^{45}\) Required: Participatory mapping with all directly affected communities. As applicable: household surveys, focus groups discussions, seasonal calendars, interviews.

\(^{46}\) Including a layer with the formal or customary community boundaries (where available).

8.2 HCV 4: Ecosystem Services – KEY ISSUE

• Conclusions related to presence, potential presence or absence of all HCV 4 attributes\(^ {47}\) supported by evidence (i.e., literature review, fieldwork results including, those from participatory mapping, consultation, interviews, etc.)
  • Ecosystem services managing extreme flow events.
  • Ecosystem services maintaining downstream flow regimes.
  • Ecosystem services maintaining water quality characteristics.
  • Ecosystem services for fire prevention and protection
  • Ecosystem services for protection of vulnerable soils, aquifers and fisheries
  • Ecosystem services for provision of clean water for local communities
  • Ecosystem services for erosion control
  • Ecosystem services for protection against winds, and the regulation of humidity, rainfall and other climatic elements.
  • Pollination services.
• If a value is deemed potentially present, evidence is weak, or results are uncertain:
  • a description on how the precautionary approach has been used, or
  • a detailed outline of what needs to be done to identify the HCV for certain.
• Evidence based delineation of the HCV area (where the values are found) with links to the data collected and reflected in the maps (if/when applicable).
• The size of the HCV area (hectares) must match the HCV area calculated according to the spatial analysis.
• HCV 4 Map for the entire AOI (assessment area(s) and wider landscape), where the HCV extends into the wider landscape. Draft maps must be clearly labelled.

8.3 HCV 5: Community needs – KEY ISSUE

- Conclusions related to presence, potential presence or absence of all HCV 5 attributes supported by evidence (i.e., literature review, fieldwork results including, those from participatory mapping, consultation, interviews, etc.)
  - Hunting and trapping grounds (for game, skin and furs)
  - NTFPs such as nuts, berries, mushrooms medicinal plants, rattan
  - Fuel for household cooking, lighting and heating
  - Fish (as essential sources of proteins) and other freshwater species relied on by the affected communities.
  - Building materials (poles, thatching, timber)
  - Fodder for livestock and seasonal grazing
  - Water sources necessary for drinking water and sanitation
  - Items which are bartered in exchange for other essential goods or sold for cash which is then used to buy essentials including medicine or clothes, or to pay for school fees.

- If a value is deemed potentially present, evidence is weak, or results are uncertain:
  - a description on how the precautionary approach has been used, or
  - a detailed outline of what needs to be done to identify the HCV for certain.

- Evidence based delineation of the HCV area (where the values are found) with links to the data collected and reflected in the maps (if/when applicable).

- The size of the HCV area (hectares) must match the HCV area calculated according to the spatial analysis.

- HCV 5 Map for the entire AOI (assessment area(s) and wider landscape), where the HCV extends into the wider landscape. Draft maps must be clearly labelled.

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8.4 HCV 6: Cultural values – KEY ISSUE

- Conclusions related to presence, potential presence or absence of all HCV 6 attributes supported by evidence (i.e., literature review, fieldwork results including, those from participatory mapping, consultation, interviews, etc.).
  - Sites recognised as having high cultural value within national policy and legislation.
  - Sites with official designation by national government and/or an international agency like UNESCO.
  - Sites with recognised and important historical or cultural values, even if they remain unprotected by legislation.
  - Religious or sacred sites, burial grounds or sites at which traditional ceremonies take place that have importance to the affected communities.
  - Plant or animal resources with totemic values or used in traditional ceremonies by the affected communities.

- If a value is deemed potentially present, evidence is weak, or results are uncertain:
  - a description on how the precautionary approach has been used, or
  - a detailed outline of what needs to be done to identify the HCV for certain.

- Evidence based delineation of the HCV area (where the values are found) with links to the data collected and reflected in the maps (if/when applicable).

- The size of the HCV area (hectares) must match the HCV area calculated according to the spatial analysis.

- HCV 6 Map for the entire AOI (assessment area(s) and wider landscape), where the HCV extends into the wider landscape. Draft maps must be clearly labelled.

8.5 Other community areas necessary for future livelihoods and food security

- Description supported by references (participatory mapping results, interviews, etc) of the directly affected communities’ current livelihood activities and

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land utilisation.

- Discussion on how the directly affected communities’ current livelihood activities and land utilisation may be affected by future changes in population and potential changes in livelihood choices and patterns (including the potential development). This includes providing an overview and how it links to the discussions with communities about future land-use and other resource needs.
- Description of community land use including swidden areas and estimates of future land needs as discussed with the affected communities.
- The indicative minimum amount of land (number of hectares) necessary to be allocated for future food security, based on population size (0.5 ha of farm-land per person), if no other data or calculation was produced.
- Brief analysis of the feasibility of allocating the minimum amount of land: where the minimum land may be (tentatively) allocated (e.g. in the AOI, adjacent with or overlapping with the AOI, and/or outside of the AOI).
- If possible/available maps of lands for future livelihood security, labelled “draft”.

9. HCS Forest Patch Analysis decision tree\(^{50}\) – KEY ISSUE

**Step 1:**

- Description and map overlaying HCS Forest classes with other layers, including:
  - Local people’s land tenure (including boundaries) and land use (including current and (if available) future land/resource use) – at least an indicative area.
  - Location of HCV areas and HCV management areas (both developed and undeveloped areas), peat soil areas (both developed and undeveloped areas), and legally protected and required conservation areas (e.g. protected areas, protected peatland, slopes, riparian zones) – if not already included in maps listed above.

**Step 2:**

- Description and map showing all the physically connected HCS Forest patches are merged. This includes patches that extend at least 1 kilometre beyond the boundary of the assessment area.

**Step 3:**

- Description and map showing the estimation of core areas and patch prioritisation.
- The complete boundary and area of the patch has been used in the analysis, irrespective of whether the patch extends outside the boundary of the management unit(s): A 100m negative buffer is applied to the boundary of the whole potential HCS patch to represent the “forest edge” area (See HCSA Advice Note 3)
  - Core area > 100 ha = High Priority Patch (HPP). All HPPs are marked for potential conservation.
  - Core area 10 – 100 ha = Medium Priority Patch (MPP)
  - Core area < 10 ha = Low Priority Patch (LPP)
- The map(s) must clearly show negative/internal 100 m buffer layer (to illustrate the core size for each patch), and use contrast colour/pattern to distinguish HPP, MPP, and LPP.

**Step 4:**

- Description and map showing (if any) MPP and LPP providing connectivity between High Priority Patches.
- All MPPs and LPPs providing connectivity between HPPs are earmarked as potential conservation. Note that connectivity is defined as two patches whose edges are within 200 m of each other, measured from actual edge to edge (connectivity does not consider patch core size, position or configuration).
- If GIS ‘aggregate’ tools were used to assist in identifying connectivity, then this must be explained here.

**Step 5:**

- Description and map showing (if any) MPP and LPP connected to High Priority Patches, and (if any)
connected MPP and LPP.
- MPP and LPP connected to HPP or any large (>100 ha core) HCS Forest or undeveloped HCV areas and undeveloped HCVMA, undeveloped peatlands, or riparian areas are marked for potential conservation.
- MPP and LPP identified as connected (but not connected to HPPs) are provisionally marked ‘give and take conservation’.
- The map(s) must clearly show the 200 m distance, and use contrast colour/pattern to distinguish HPP, MPP, or LPP.
- MPP not connected to HPP – to be reviewed in step 7.
- LPPs that do not have immediate connectivity to HPPs nor to MPPs, nor to undeveloped HCV Areas and HCVMA, riparian areas, undeveloped peatland, or HCS Forests outside the Assessment Area are shortlisted for potential development and reviewed in Step 13 (Integration and Conservation Planning).

Step 6:
- Description and map showing (if any) MPP and LPP that have not been earmarked as potential conservation.
- The map(s) must clearly show separation between the MPP and LPP (that are subjected to this step).
- MPPs that have not yet been designated for conservation are to be reviewed in step 7.
- Remaining LPPs in Medium Forest Cover Landscapes are not analysed further nor shortlisted for conservation; they are classed as indicative ‘give and take develop’ and held for consideration during the final boundary adjustment, ‘give and take’ process, and land use planning phase.
- LPPs in Low Forest Cover Landscape are reviewed in step 9.

Step 7:
- Description and map showing the risk assessment of the MPPs resulted from step 6 (if any) following the HCSA Toolkit V2 Module 5.
- MPPs outside the high-risk zones are identified as lower-risk and are marked as ‘potential conservation area’.
- MPPs located inside the risk zones are identified as higher-risk and are reviewed in step 8, step 9 and step 13.
- The map(s) must show the buffer distance and/or other factors used for the risk assessment and use contrast colour/pattern to distinguish lower risk MPP and higher risk MPP.

Step 8:
- Description and map showing High-Risk MPP for the presence of LDF, MDF, and HDF.
- Higher-risk MPPs containing more than 10 ha of continuous core area of LDF, MDF or HDF (not YRF) are marked for potential conservation with mitigation measures to address the threats to these forests.
- The map(s) must clearly show the HDF/MDF/LDF in contrast to YRF in the High-risk MPP.

Step 9 and 10:
- Explanation if the assessment’s biodiversity field work/survey has covered the High-risk MPP (subjected to this step, with no more than 10 ha of continuous HDF/MDF/LDF). If the MPPs, haven’t been surveyed, then provide the description of the pre-RBA check and map of the RBA conducted (according to the HCSA TK Module 5).
- If an integrated HCV/HCS Assessment report (including ALS and quality assurance) was used for the assessment, and field surveys for biodiversity values have already been carried out in these MPPs (particularly for representative areas and aggregations/concentrations of local species and their habitat), then an RBA is not required. In such cases, the target MPPs can be evaluated using existing information for these biodiversity values and either moved to ‘potential conservation area’ (where the patch contains biodiversity values) or ‘indicative give and take develop’ (where the patch contains no biodiversity values).

Step 11:
- Description of the step 11 and map(s) showing
that all HCVs 1, 2, 3, and 4 Areas, peatland areas, riparian zones, and any other protection or conservation areas with all HPPs, MPPs and LPPs that have either been identified as ‘potential conservation area’.

**Step 12:**

- This step is recommended only. If conducted by the assessor, the map should show the surrounding wider landscape (5 km from the boundary of the assessment area) and consider additional areas that may function as wildlife corridors to be earmarked as potential conservation.

**Step 13:**

- Description and rationale for the Give and Take process (if applicable/conducted) It should be emphasised that while the full ‘give and take’ process is preferable because it increases viability and optimisation, it is not a mandatory requirement. If Give and Take is conducted, description and justification following the requirements and principles for Give and Take outlined in HCSA Toolkit V2 Module 5 (step 13) must be provided.
- A DRAFT version of the step 13 map, showing the potential conservation areas, potential development areas, (already) developed area, and community land use areas within the assessment area.
- MU boundaries (according to the permit/license) must be delineated on the map. Areas within the MU but excluded from the assessment area due to extraordinary circumstances (such as consent to conduct the assessment was not granted) are part of the Wider Landscape (of the assessment area) and must be marked as “Not-assessed.”
- This section must also include:
  - Discussion and comments on the HCS Forest Patch Analysis decision tree outcome
  - Description of limitations and extraordinary circumstances (if any)
  - Recommendations to follow up with Step 14, noting that the final step is required to produce the proposed ICLUP map.
  - Explanation if any step in the HCS Forest Patch Analysis decision tree that was skipped (due to being not applicable)

10. Stakeholder consultation – KEY ISSUE

- When and where stakeholder consultations were conducted?
- Who participated in the consultations? (Name, title / role, community and sub-group affiliation, if applicable; key concerns and recommendations; assessment team response)
- How was the information shared and consulted upon?
- How were stakeholder concerns addressed and considered into the assessment decisions and reporting?
- State if any concerns related to the HCV-HCSA assessment (process and outcomes) could not be addressed by the assessment team and will need to be followed up by the Organisation after the assessment.

11. Management and monitoring recommendations – KEY ISSUE

- Description of current and potential threats (direct / indirect, internal / external) to all values identified (e.g., HCS Forest patches, HCVs, local peoples’ lands and peatlands) prioritized according to scale, intensity, permanence/irreversibility or other criteria (see Conservation Measures Partnership)
- Map(s) of HCV management areas and HCS Forest patches
- Description of how HCV and HCS Forest management areas were designed (delineated on the map) to address threats and maintain values.
- For every value identified describe threats, management areas and management prescriptions and monitoring recommendations.
- Advice to follow up on any pending consultation related to HCVs, HCS Forests and local peoples’ lands (if applicable)
- Where there are affected communities, if the report is submitted more than 2 years after final consultation: include recommendation for the Organi-
sation to validate the assessment outcomes with the affected communities (if any) before implementation.

- Summary areas (in hectares) to be published on the HCVN website\(^{51}\).
  - Total potential Conservation Area (Total HCVMA + HCS Forest + peat + local people’s land in AA without overlaps). This shall be equivalent to the potential conservation area after the patch analysis.
  - Community Land Use Areas, this includes local people’s land in AA (without counting the overlaps)
  - Total HCV area (Total HCV area in AA without overlaps, both developed and undeveloped areas)
  - Total HCVMA area (Total HCV area in AA without overlaps, both developed and undeveloped areas)
  - Total HCS Forests
  - The reasons for having a distinction between the HCV areas and the HCV management areas must be clearly explained by the assessor.

List of Required Annexes

- CVs of assessment team members
- Community engagement throughout the assessment. Details of meetings held (including dates, persons and their role, topics/finding), participatory mapping activities, participation in field data collection.
- Final stakeholder consultation evidence: List of meetings, evidence of participation in meetings, list of people interviewed. Other relevant documents (e.g., correspondence from community, statements from stakeholders etc.).
- Completed sworn declaration.
- Documented ground-truthing photos of each survey location/checkpoint. Five images (N, S, E, W, and canopy views) per location, or lidar or aerial photographs (minimum 300 dpi). The photos must be linked to the shapefile of the ground-truthing survey checkpoints, each location corresponds to the respective documented photos.
- Statistical analysis (Analysis of variance, significance tests, justification) – If the information has not already been provided in the report.
- HCS Forest Patch Analysis: Patch list and description. Complete the following table. Each patch must be numbered, and the patch number must correspond to the information provided in shapefile data. – If the information has not already been provided in the report.

<table>
<thead>
<tr>
<th>Patch number</th>
<th>Total area (ha)</th>
<th>Of which core (ha)</th>
<th>Priority (Low-LP, Medium-MP, High-HP)</th>
<th>Description of decision DTree</th>
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<td>e.g. ‘indicative conserve because HP’</td>
<td>'indicative develop because LP in High Forest</td>
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</table>

\(^{51}\) Avoid any references or content that refers to “GO/NO-GO area” since the outcome of the assessment must follow the terminology in the HCSA Toolkit V2 Module 5, with the conclusions being: potential conservation areas, potential development areas and community land use areas. If any already developed areas are designated as HCV management areas, these should be labelled as “potential development areas with management prescriptions”.

List of required supplementary materials

These materials must be included in the submitted assessment report package:

- Shapefile of the management unit boundaries
• Shapefile of the assessment area (if this is not identical with the MU boundaries)
• Shapefile of the AOI boundaries
• Input satellite imagery used for classification, including the main images, and/or ancillary images (if any) for the AOI.
• Shapefile of preliminary land cover map
• Shapefile of segmentation layer used in object-based land cover classification.
• Shapefile of training samples points used in the preliminary land cover classification.
• Shapefile of final land cover map
• Shapefile of the ground-truthing survey locations/checkpoints for the assessment area and/or AOI used in the accuracy assessment (to produce the final land cover map)
• Shapefiles of the sample/survey locations for the environmental/biodiversity field work for the assessment area and/or AOI
• Shapefiles of the sample/survey locations for the social field work for the assessment area and/or AOI
• Shapefiles of HCVs or HCV areas (proxies for where HCVs occur) for the assessment area and/or AOI.
• Shapefiles of HCV management areas for the assessment area and/or AOI
• Shapefiles of community land use and land tenure areas for the assessment area
• Shapefiles of HCSA forest inventory plot locations (if option 3 is used)
• Complete forest inventory plot data (if option 3 is used): Raw and processed data after analysis (including allometric equation used) for each plot and summary data at plot level. This includes the complete tree species list with wood density assumptions.
• LiDAR calibration plot and LiDAR transect data (if option 1 or option 2 are used)
• Shapefiles of the maps for each step of the HCS Forest Patch Analysis decision tree.
• Shapefiles of HCS Forest patches used in the HCS Forest Patch Analysis decision tree. This must be consistent with the information provided in the Patch Analysis report section and the respective annex.
Annex 1 (required) - Sworn Declaration

Do you have COI in conducting this assessment?

- Yes
- No
  - Explain how you managed the COI.

Have you verified that the Organisation had rights/permission to assess the AA(s) in their entirety?

- Yes
- No
  - Confirm you have excluded from the report all areas where the Organisation did not document rights.

Have you verified all affected communities have given FPIC and participated in the assessment?

- There are no affected communities
- Yes
- No
  - Confirm the areas of all affected communities that did not give FPIC / participated in the assessment have been excluded from the report.

Have you verified there were no ongoing land conflicts/disputes involving any of the directly affected communities?

- Yes, there were no ongoing land conflicts/disputes involving directly affected communities.
- Yes, there were ongoing land conflicts/disputes involving directly affected communities.
  - Confirm you have excluded from the report all areas of directly affected communities with ongoing conflict where all parties involved did not give FPIC / participated in the assessment.
Have you verified no land clearing took place in the assessment area since the date the Organisation became responsible for the area?

- D.1 Yes, there was no land clearing in the assessment area since the Organisation became responsible for the area
- D.2. There was land clearing in the assessment area and the report includes information on all land clearing happening since the date of acquisition and a recommendation for the Organisation to disclose the land clearing as applicable (i.e., to the relevant certification scheme, authority, buyers, etc.)

Has the team composition followed the requirements at the time of the assessment?

- Yes
Annex 2: HCV-HCSA Assessment report template structure

Cover page
- Purpose of the assessment
- Location of the assessment – KEY ISSUE
- Overview of the Organisation commissioning the assessment
- Assessment Timeline and team
- Description of the AOI - KEY ISSUE
- Land cover classification - KEY ISSUE
  - Preliminary land cover classification
  - Image Acquisition
  - Image pre-processing
  - Image processing
  - Object-based land cover classification
  - Accuracy assessment of the preliminary land cover classification
  - Final land cover classification
  - Additional provisions
- HCS Forest, Peat and Environmental HCVS
  - HCS Forest - KEY ISSUE
  - Peat - KEY ISSUE
  - HCV: Methods, sources and key context information- KEY ISSUE
  - HCV 1: Species Diversity - KEY ISSUE
  - HCV 2: Landscape-level ecosystems, ecosystem mosaics and IFL - KEY ISSUE
  - HCV 3: Ecosystems and habitats - KEY ISSUE
- Social HCVs, Local People's Lands
  - Social Methods, sources, context information and participatory mapping results - KEY ISSUE
  - HCV 4: Ecosystem Services - KEY ISSUE
  - HCV 5: Community needs - KEY ISSUE
  - HCV 6: Cultural values - KEY ISSUE
  - Other community areas necessary for future livelihoods and food security
- HCS Forest Patch Analysis decision tree\(^{52}\) - KEY ISSUE
- Stakeholder consultation - KEY ISSUE
- Management and monitoring recommendations - KEY ISSUE

Annexes
Supplementary materials
References

\(^{52}\) Note that the scope of the Patch Analysis in HCV-HCSA assessment ends at Step 13, and the final ground checking (step 14) is not within the scope of the HCV-HCSA assessment.