HCS+ - A new pathway to sustainable oil palm development

The HCS+ methodology, which significantly extends the HCS Approach, can deliver palm oil development that:

• Ensures carbon neutrality and contributes to protecting essential non-carbon forest values

• Better protects human rights and improves welfare

• Is economically viable and acceptable to key stakeholders including governments, local communities and companies undertaking new developments
The HCS+ methodology covers much more than Carbon

HCS+ takes account of all the elements required to support planning for sustainable development of oil palm, and provides a framework for integrating these key inputs to guide land use decisions.

Sustainable development of oil palm

- Protects important forests (HCV, HCS, riparian)
- Achieves C neutral development – no C debt, planning flexibility, strengthened protection of set-asides
- More effective application of existing standards to protect rights and livelihoods, and new approaches to ensure improved welfare for local and regional communities
- Integrates key inputs via multi-stakeholder planning – producing a agreed land management plan with clear implementation steps, and well specified social contract
- Monitoring for compliance and agreed outcomes, reporting [Monitoring Reporting and Verification (MRV) framework]
Sustainable oil palm development must be based on three pillars:

• **Pillar 1** – Land conversion must maintain critical ecosystem services

• **Pillar 2** – Oil palm development must deliver socio-economic benefits for local communities

• **Pillar 3** – Oil palm development must be economically viable

These three pillars must be constructed independently, avoiding trade-offs between them.
Application of Remote Sensing

The HCS+ methodology is underpinned by advanced remote sensing:

• To map at high spatial resolution above-ground carbon using airborne LiDAR

• To map vegetation and land use in the concession and adjacent areas using high resolution optical satellite data

• To help map peatlands and other organic soils,

Thresholds have been set to achieve the following goals:

• No clearing of Old-Growth forests, forests regrowing after selective harvesting, and secondary forests where Above-Ground carbon (AGC) is > 75 t C/ha

• No development on organic soils (peat and other) where the organic layer exceeds 15 cm in depth

• Well planned development by conversion of some forests with AGC of < 75 t C/ha, provided that development is C neutral

• Focus development on low C lands - currently unused already cleared or degraded lands where these are suitable for oil palm
## Above-ground Carbon

**First Threshold Applied**

<table>
<thead>
<tr>
<th>AGC (t C/ha)</th>
<th>Description</th>
<th>Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>~200</td>
<td>Old growth forest</td>
<td></td>
</tr>
<tr>
<td>75-125</td>
<td>Logged, degraded forest</td>
<td>No development</td>
</tr>
<tr>
<td>75</td>
<td>30 year secondary forest</td>
<td></td>
</tr>
<tr>
<td>~40</td>
<td>Highly degraded forest</td>
<td>Development (C losses)</td>
</tr>
<tr>
<td>~30-75</td>
<td>Regenerating forest including early-stage secondary forest</td>
<td>Development (C losses)</td>
</tr>
<tr>
<td>30</td>
<td>Oil Palm average</td>
<td></td>
</tr>
<tr>
<td>~5-20</td>
<td>Very Young regenerating forest, and Grassland/ scrub</td>
<td>Development (C gains)</td>
</tr>
</tbody>
</table>

## Soil

**Second threshold independently applied if biomass threshold NOT exceeded**

<table>
<thead>
<tr>
<th>Emissions from Soil [t C/ha over 25 years]</th>
<th>Zone</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 75</td>
<td>No development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• All peat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• All organic layers &gt; 15 cm deep</td>
<td></td>
</tr>
<tr>
<td>0 (mineral soils) – 75 (thin organic soils)</td>
<td>Development (C losses)</td>
<td></td>
</tr>
</tbody>
</table>

Zero point

Negative (gain of C) | Development (C gains) |   |
|                     | • Unlikely or small   |   |
Making development C neutral at the concession scale

- Balancing C emissions from forest conversion against C sequestration in protected set-asides within the concession [or in other concessions managed by the developer in the same biogeographic region]

- Protected set-aside can be HCV, HCS or non-HCS forests

- C sequestration must be both additional (resulting from active management) and verified (using reliable methods). And is binding on the developer, and subject to penalties if obligations not met

An Approach to Carbon-Neutral Conversion to Oil Palm
What to do in heavily forested regions?

• Firstly look to locate new concessions in lower C landscapes

• The HCS+ thresholds should be applied in all countries/regions. Provided sufficient land is available for development, there are more opportunities in such landscapes to set aside forests to achieve C neutrality

• In regions where most land is HCS, regional planning by governments should determine how best to achieve conservation and development goals, whilst still maintaining carbon neutrality (via protection of set-asides).

Ensuring good socio-economic outcomes

• Avoid negative impacts - A more robust and comprehensive implementation of the existing rights-based framework. Independent audit (verifiers) and reporting. A central role for communities themselves

• Boost positive impacts - A greater focus on community livelihoods and value-sharing. Social contracts specifying measurable outcomes, and fairer small-holder models. Co-management (with communities) of set-asides, with well defined guidelines for use of such areas
The HCS+ socio-economic methodology

- Specifies the information/actions required by companies to demonstrate that human rights have been protected and that planned socio-economic outcomes have materialized.

- Metrics are needed to be able to track socio-economic impacts (positive or negative), and to underpin adaptive management.

- HCS+ proposes a new measure, the Palm Oil Welfare Index (POWI) to establish socio-economic conditions before development, measure subsequent impacts on welfare and to identify adaptive actions.

HCS+ socio-economic methodology

- Clear, measurable, and objective criteria to verify adherence to existing socio-economic standards (e.g. labour, FPIC, set-asides for livelihoods, participation, grievances, social infrastructure, fairness for small-holders).

- A socio-economic auditing process. Socio-economic auditing should be carried out prior to land conversion to ensure informed consent and adequate livelihood set asides for local communities.

- Clear procedures for companies to establish favourable small holder models and provide social infrastructure. Assistance to small holders with improved technologies and market access, as well as social infrastructure such as educational and health facilities, are likely to boost the positive socio-economic impacts of oil palm development.

- A procedure to monitor socio-economic outcomes of oil palm development for local communities. Companies should use established methods, such as those recommended for POWI (Palm Oil Welfare Index) to monitor food security, income, and access to clean water and social infrastructure.
Integration of key inputs and processes

HCS+ proposes a better integrated planning approach to facilitate sustainable oil palm development. This involves HCV and HCS+ assessments as well as FPIC processes and other inputs to produce development plans that take into account socio-economic, carbon and biodiversity considerations.

Key steps in implementing HCS+ methodology
Conclusions

• HCS+ contains all required elements to support planning for sustainable development of oil palm, and provides a framework for integrating key inputs

• It builds on and enhances existing processes, especially RSPO P&C, HCV and FPIC

• Allows development without C debt, and provides a strong mechanism for protection of set-aside forests. Thus allowing some forest conversion to oil palm, is likely to lead to better long-term conservation outcomes

• Much can be implemented quickly, some parts require field testing to evaluate cost-effectiveness

• Considerable potential for convergence with the HCS Approach