One methodology for No Deforestation –
HCS Convergence (HCSA and HCS+), and implications for
RSPO & New Plantings GHG Assessments

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Outline

❖ HCS Approach and HCS+
❖ Announcing HCS Convergence
❖ Key element of the converged methodology
❖ Implications for RSPO
❖ Summary and Next Steps
**HCS Approach and HCS Science Study**

**HCS Approach:**
- Began 2011 to practically implement ‘No Deforestation’ commitments
- Remote sensing and field plots for vegetation stratification, forest patch
  Decision Tree for conservation and land use planning
- Integrates with FPIC, Participatory mapping, HCV, peat protection

**HCS+**
- Began 2014 – science study aimed at reducing GHG emissions from PO
- LiDAR mapping AGC, organic soils, carbon neutrality, social
  requirements, multi-stakeholder land use planning

**Convergence focus – achieving No Deforestation**
- which areas are
  natural forest and which are degraded land?
Announcing HCS Convergence

- A single HCS methodology has been agreed!
  - Combines HCS Approach and HCS+
  - Key elements: HCS thresholds via vegetation stratification, use of LiDAR, decision tree for ‘Young Regenerating Forest’ patches, role of carbon, & robust social requirements
  - Working groups to resolve outstanding issues: application of HCS to smallholders & High Forest Cover landscapes, protection of HCS forest
  - Ongoing discussion on functional and governance integration with HCV Resource Network

Ongoing governance - HCSA Steering Group, & Sime Darby, IOI, KLK and Cargill will apply to join
Finalising the converged HCS methodology via Toolkit v2

- HCSA Toolkit launched in April 2015
- Designed as a practitioners manual on the methodology
- Currently under review, including addressing the convergence elements
- Further trials, then release v2 in early 2017
- Science Advisory Committee including HCS+ scientists

HCS Convergence and RSPO

- Practical methodology to define and identify High Carbon Stock forest areas
- Can be incorporated into P&C revision – Principle 7
- Already referred to in RSPO Next
- Can significantly strengthen RSPO GHG Assessment Procedure for New Plantings – esp. Chapter 3 where HCS assessments can replace AGC default values, and Chapter 4 with carbon estimations and land development options
Stratify vegetation for land cover classes – remote sensing

A combined unsupervised and supervised analysis of optical data using visual attributes to provisionally stratify vegetation into 6 classes

Or, alternatively LiDAR to determine vegetation height

Field plots to gather species, height and DBH data to determine Above Ground Biomass

- Community engagement and FPIC process begins to gain consent
- Nested plots measure AGB in trees >5cm DBH
- Carbon estimated using global (Chave et al. 2014) or locally appropriate allometric
- Alternative plot designs possible

Vegetation Stratification from remote sensing is calibrated with field plot data to map potential HCS forest areas
POTENTIAL HCS AREAS MAY BE DEVELOPED

High-Density Forest (HDF/HK3)
Remnant forest or advanced secondary forest close to primary condition

Medium Density Forest (MDF/HK2)
Remnant forest but more disturbed than HK3

Low Density Forest (LDF/HK1)
Appears to be remnant forest but highly disturbed and recovering [may contain plantation/mixed garden]

Young Regenerating Forest (YRF)
Mostly young re-growth forest, but with occasional patches of older forest within the stratum

Scrub (S)
Recently cleared areas, some woody regrowth and grass-like ground cover

Cleared/Open Land (OL)
Very recently cleared land with mostly grass or crops, few woody plants

Convergence changes to HCS forest patch decision tree
Phase 1: Vegetation Stratification

Phase Two: HCS forest patch analysis
Decision Tree – a) patch prioritisation & HCV
b) Steps 12 & 13: connectivity, ‘give & take’ boundary adjustment and exchange for optimisation

Summary and Next Steps

- HCS convergence is a huge step forward for implementing No Deforestation – only one methodology
- Can help RSPO by clarifying and supporting parts of Principle 7 and GHG Assessment Procedure for NP
- Ongoing governance of the HCS methodology by HCSA Steering Group - multi-stakeholder initiative
- Continued development of HCS for small farmers, in high forest cover regions, and forest conservation mechanisms
- Integration discussions with HCV Resource Network
Thank you!

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