One methodology for No Deforestation –

HCS Convergence (HCSA and HCS+), and implications for RSPO & New Plantings GHG Assessments

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RT14, Bangkok

Outline

- HCS Approach and HCS+
- Announcing HCS Convergence
- Key element of the converged methodology
- Implications for RSPO
- Summary and Next Steps

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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

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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

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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

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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

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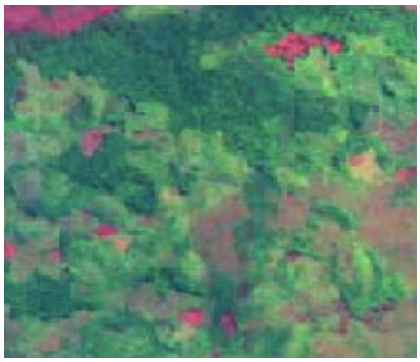
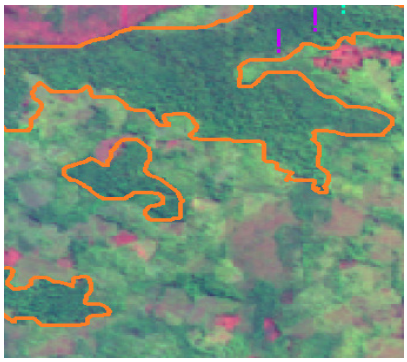
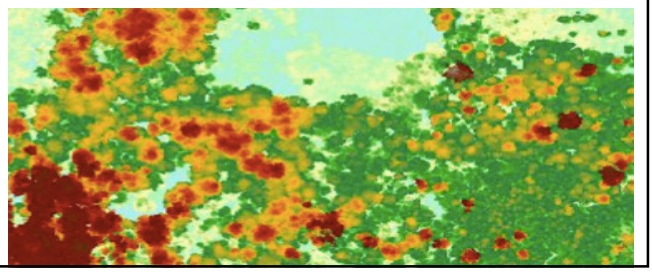
Stratify vegetation for land cover classes – remote sensing



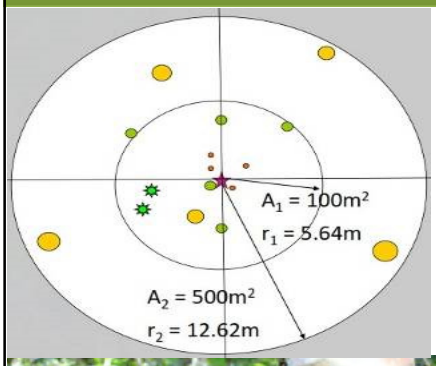
A combined unsupervised and supervised analysis of optical data using visual attributes to provisionally stratify vegetation into 6 classes

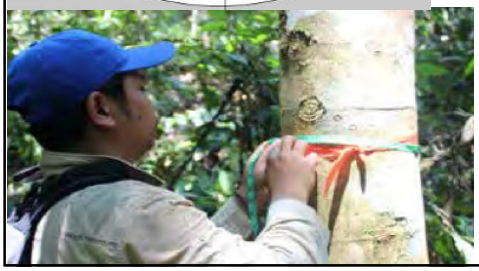


Or, alternatively LiDAR to determine vegetation height



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 etal 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

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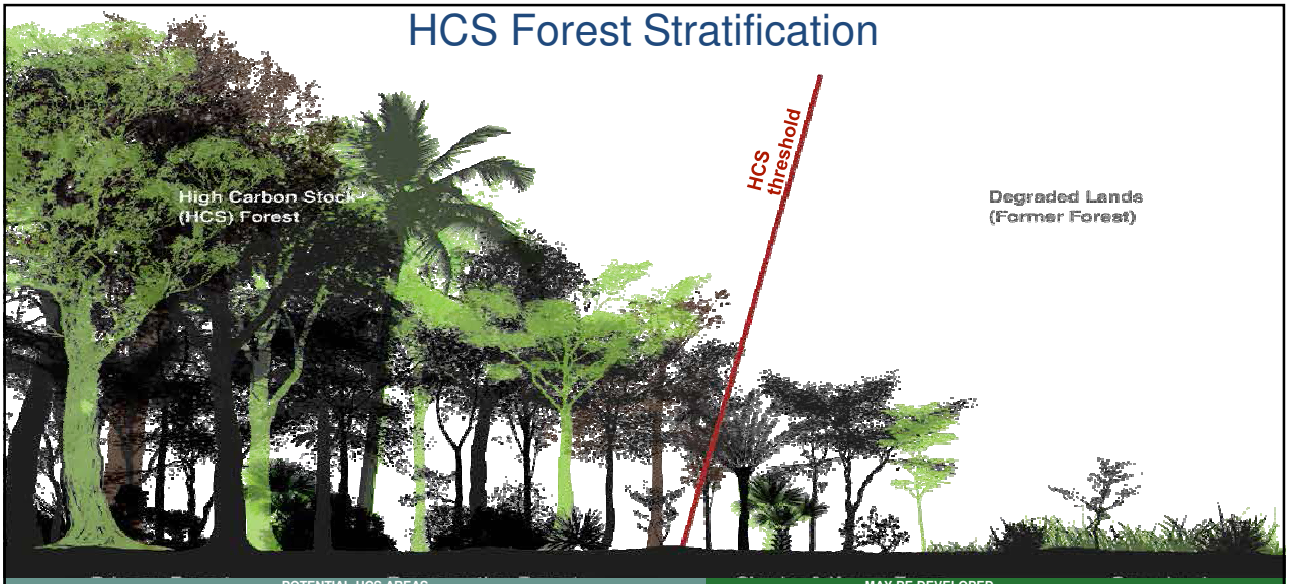
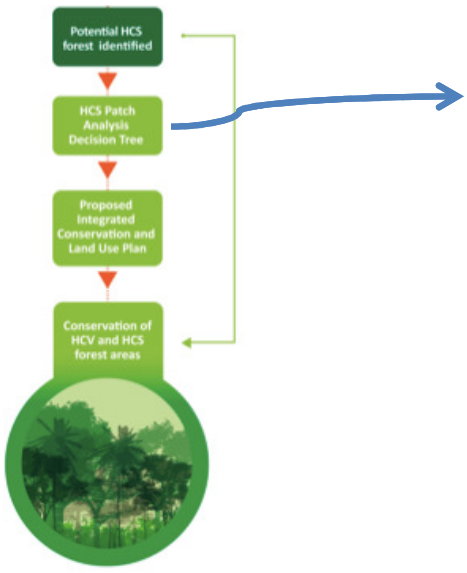
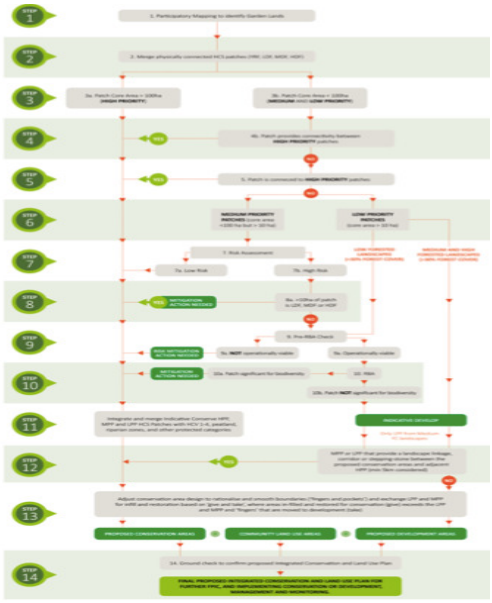
HCS Forest Stratification



POTENTIAL HCS AREAS				MAY BE DEVELOPED	
High-Density Forest (HDF/HK3)	**Medium Density Forest (MDF/HK2)**	**Low Density Forest (LDF/HK1)**	**Young Regenerating Forest (YRF)**	**Scrub (S))**	**Cleared/Open Land (OL)**
Remnant forest or advanced secondary forest close to primary condition	Remnant forest but more disturbed than HK3	Appears to be remnant forest but highly disturbed and recovering [may contain plantation/ mixed garden]	Mostly young re-growth forest, but with occasional patches of older forest within the stratum	Recently cleared areas, some woody regrowth and grass-like ground cover	Very recently cleared land with mostly grass or crops, few woody plants

Convergence changes to HCS forest patch decision tree





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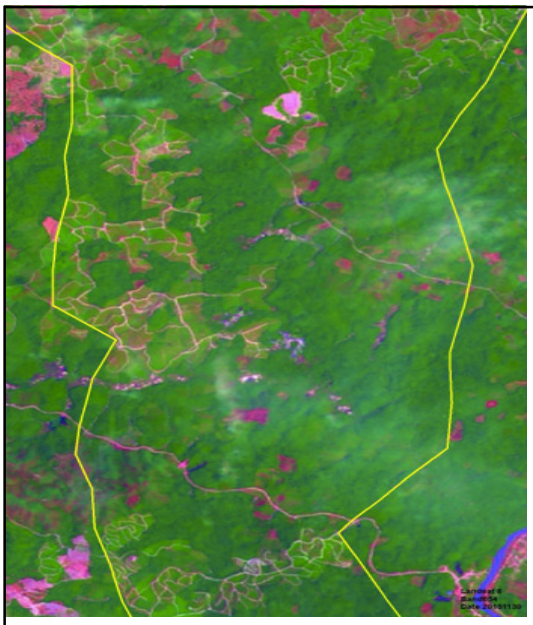
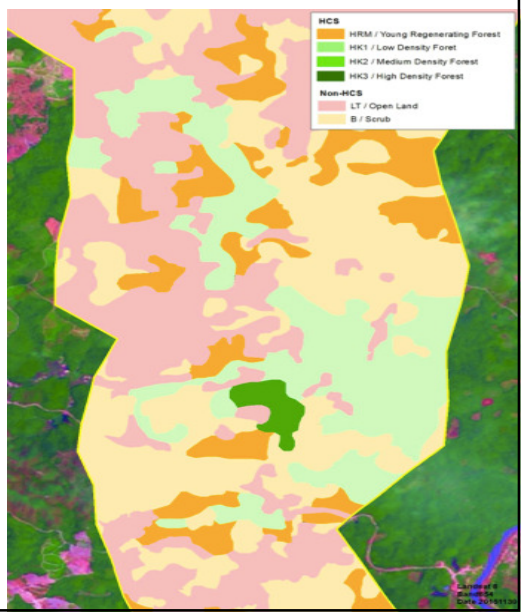
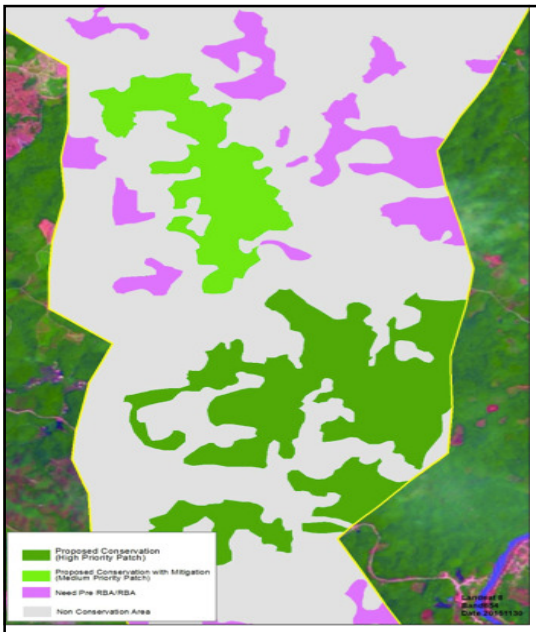
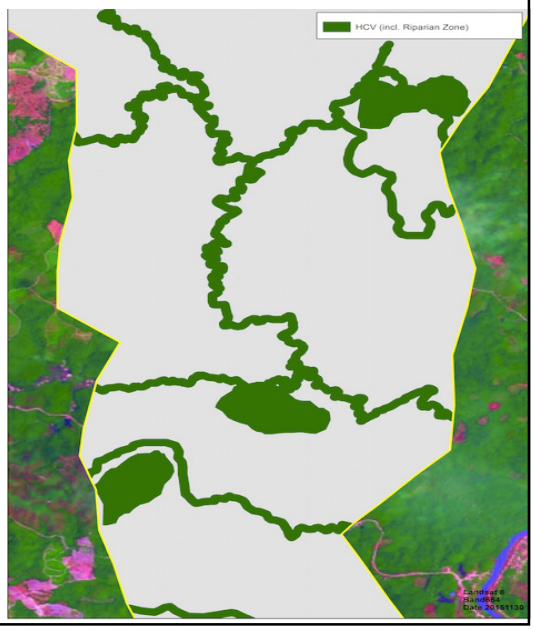


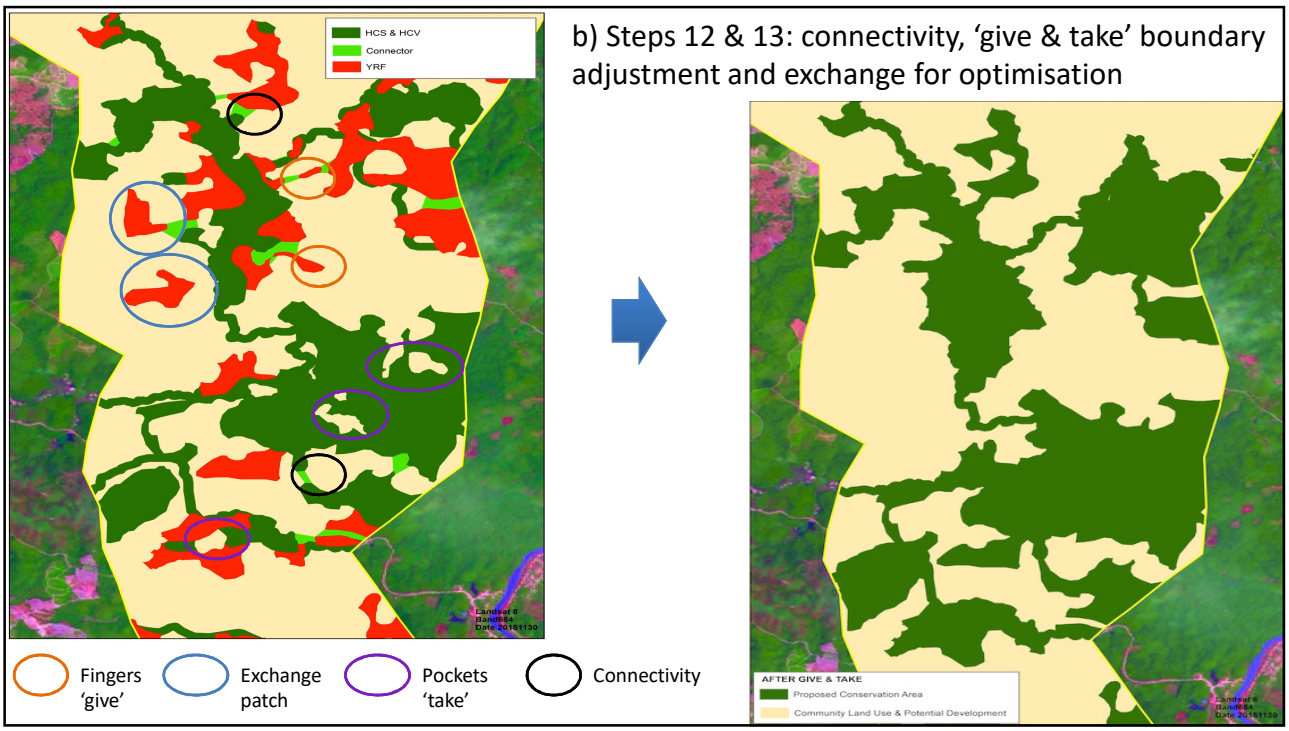
Phase 1: Vegetation Stratification





Phase Two: HCS forest patch analysis
Decision Tree – a) patch prioritisation & HCV





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!

For more information:
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