



# High Carbon Stock Approach

- No deforestation in practice

By Grant Rosoman  
HCS Approach Steering Group and Palm Oil Innovation Group (POIG)



## Contents

- ❖ Context of the HCS Approach
- ❖ What is the HCS Approach – summary overview
- ❖ Relationship to the SPOM HCS Study
- ❖ Next Steps

## Context of the HCS Approach

- HCS Approach developed to implement No Deforestation policy commitments that break the link between palm oil and deforestation
- Methodology initially developed by Golden Agri Resources, The Forest Trust and Greenpeace
- The multi-stakeholder HCS Approach Steering Group now established to provide global governance and standardisation
- The HCS Approach Steering Group has a 'Consultative Forum' for broad stakeholder engagement including: consumer companies, CSOs and community groups, and RSPO and members.

2

## Context of the HCS Approach (2)

- HCS Approach Steering Group plans to engage governments on implementation of the HCS Approach
- The Palm Oil Innovation Group (POIG) includes HCS in its Charter and is carrying out independent verification of No Deforestation via the HCS Approach
- HCS Approach Steering Group and the POIG both aim to have the HCS Approach incorporated into RSPO P&C, as well as other initiatives such as FSC and REDD+

3

## What is the HCS Approach

- The HCS Approach is a tool for land use planning – it is not a carbon assessment
- Uses vegetation density and structure combined with above ground carbon estimates to identify forest areas from degraded (former forest) lands.
- Then in a precautionary way combines this with biodiversity and social considerations to pragmatically implement No Deforestation in the humid tropics
- It brings together HCS forest with HCV and peat land assessments and FPIC, including community mapping, to make land use planning recommendations

4

## Two phases

### Phase 1

Vegetation stratification  
to identify potential HCS  
forest areas

### Phase 2

HCS forest patch  
analysis and  
conservation

5

## Phase 1 – vegetation stratification

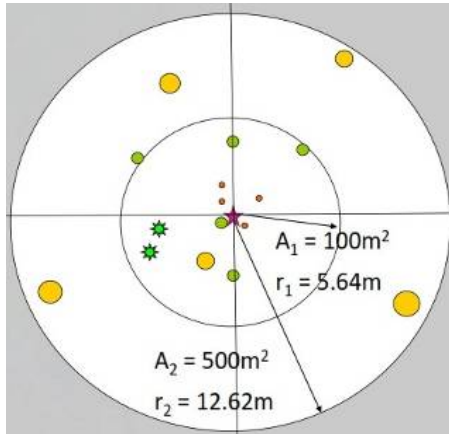
6

### Vegetation Stratification using pixel analysis



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

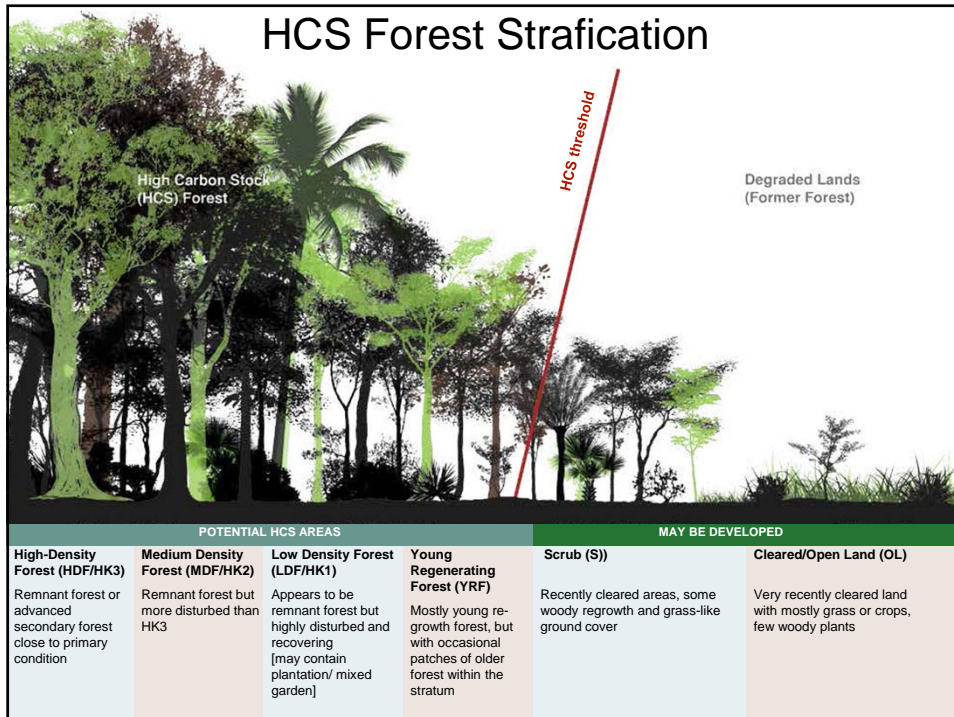
## Field plots to Assess Above Ground Biomass



- Community engagement and FPIC process begins to gain consent for plots and mapping of lands
- Plots measure AGB in trees >5cm DBH
- Carbon estimated using *Brown (1997)* or locally appropriate allometric

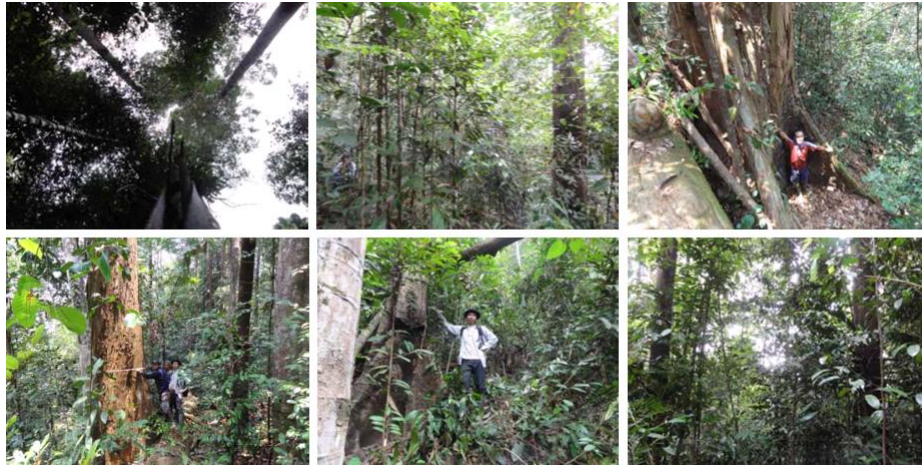
8

## HCS Forest Stratification





### HDF: High Density Forest



10

### MDF: Medium Density Forest



11

## LDF: Low Density Forest



12

## YRF: Young Regenerating Forest



13



### S: Scrub



14

### OL: Cleared/Open Land



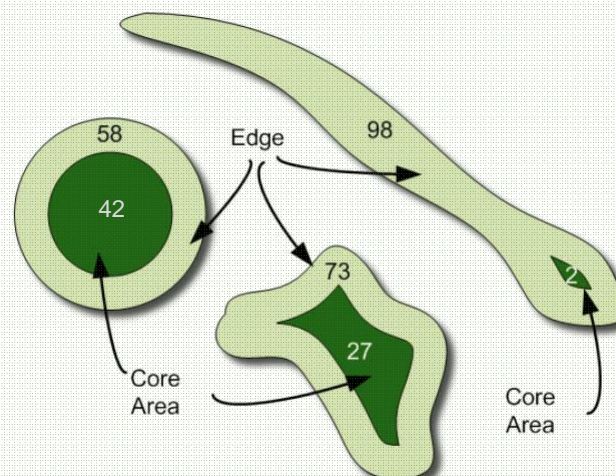
15



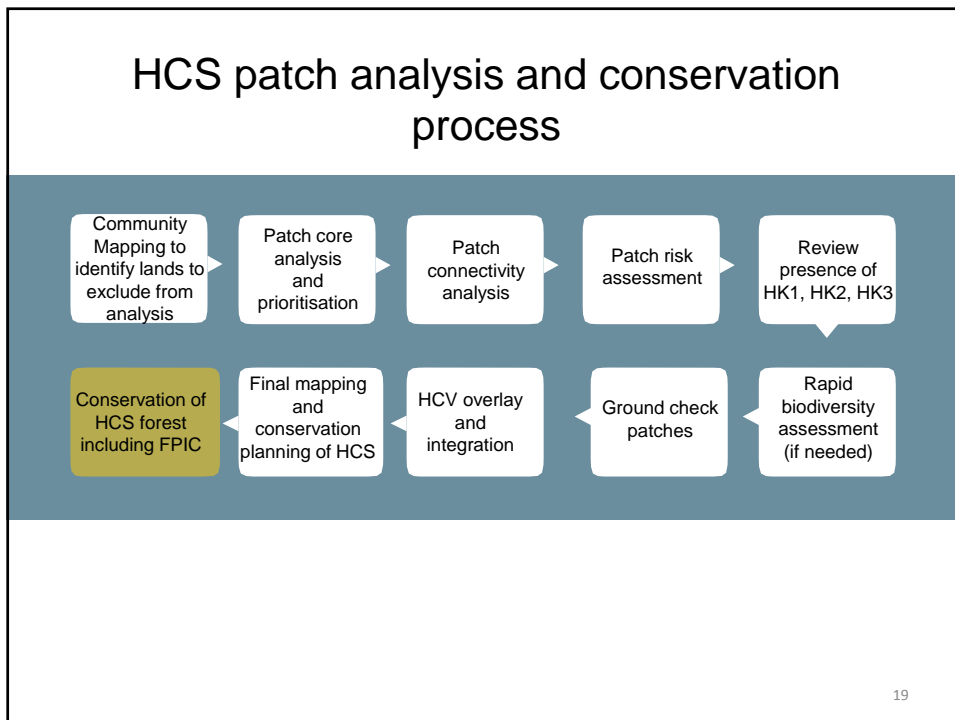
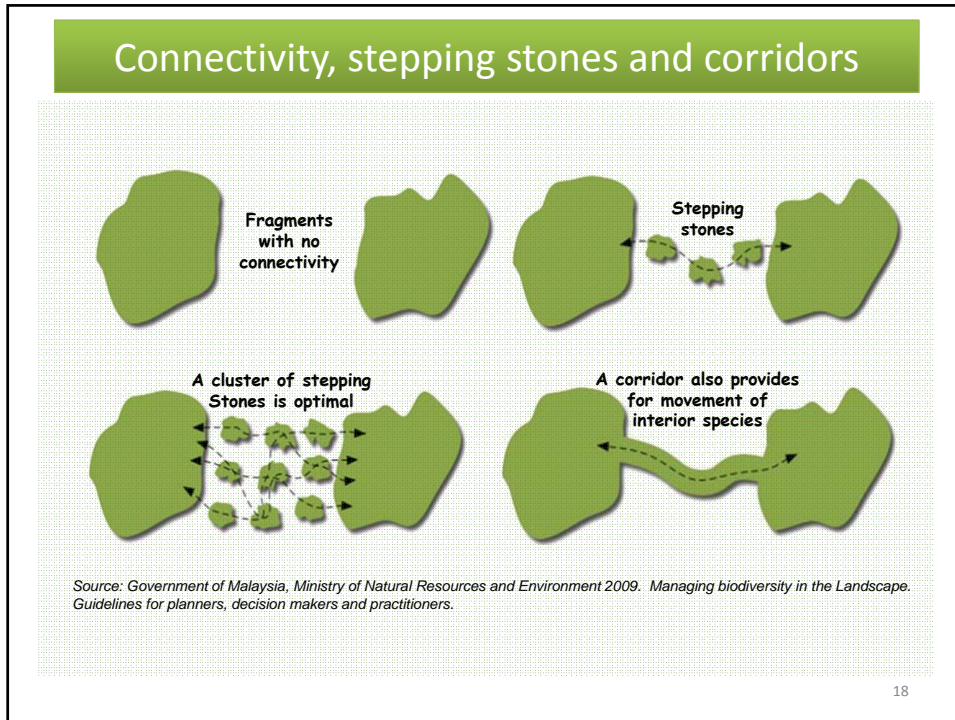
## Phase 2 - HCS patch analysis and conservation

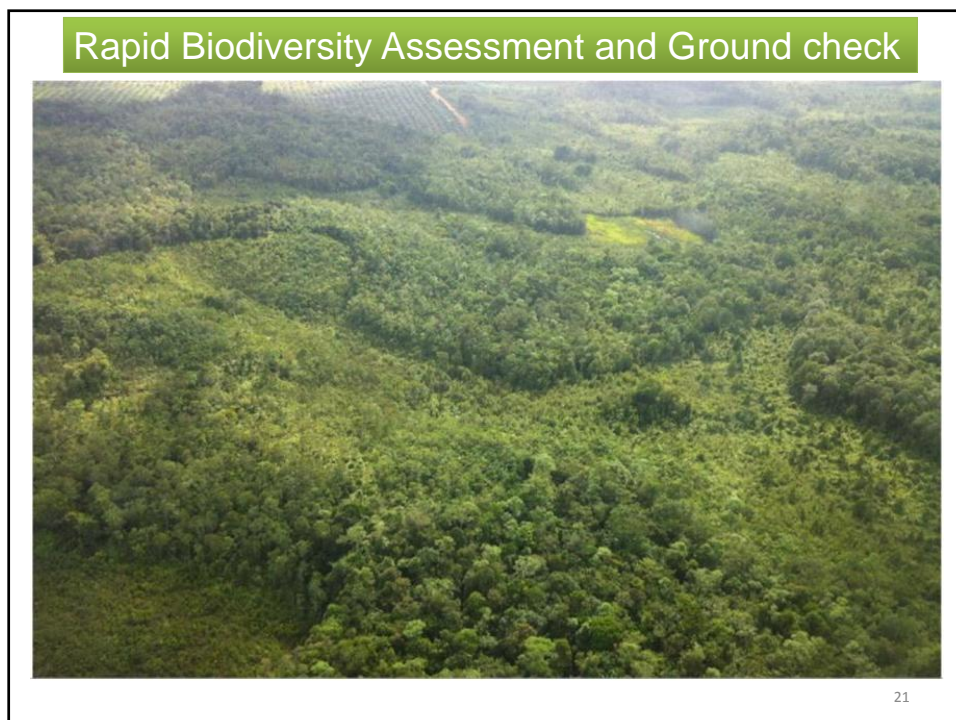
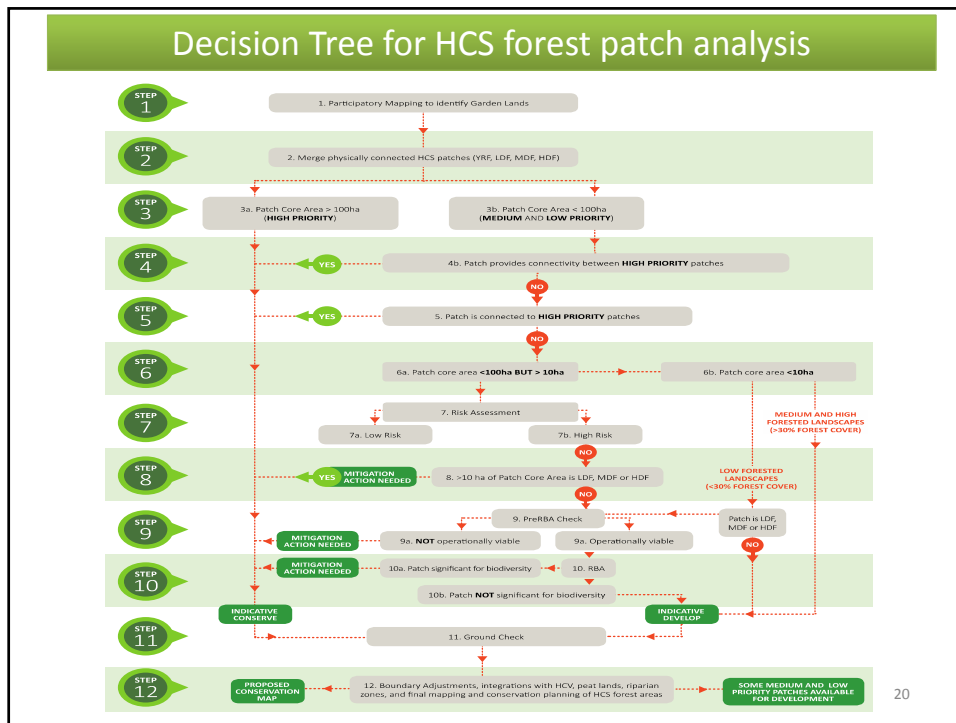
- Objective is identify viable forest patches that can maintain or revert to their ecological function as a forest.
- Incorporates general conservation principles and science on patch size, shape, core area, configuration, and connectivity including adjacent to a concession.
- Takes into account social (i.e. community land use, and rights)
- Requires a robust HCV assessment and participatory processes with the community (FPIC and land use planning)
- Final step is when HCS forest areas are integrated into an overall proposed land use and conservation plan together with HCV areas, peat land, riparian zones and other areas for conservation

## Forest patch, edge effects and 'core'

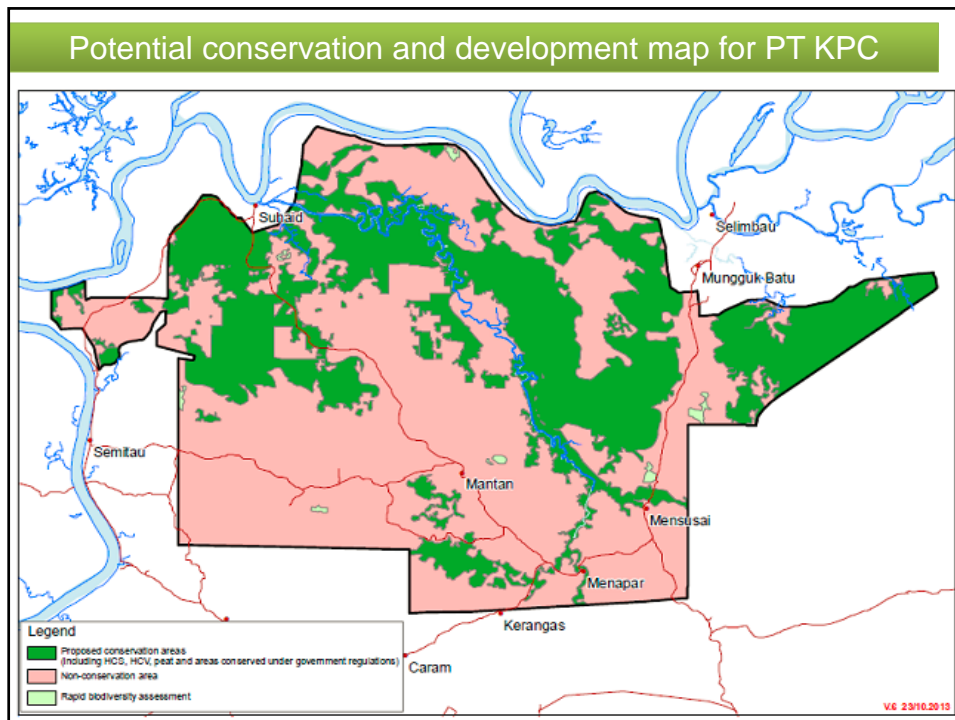


Source: Government of Malaysia, Ministry of Natural Resources and Environment 2009. *Managing biodiversity in the Landscape. Guidelines for planners, decision makers and practitioners.*









## Relationship to SPOM HCS Study

- SPOM HCS Study has a focus on GHG emissions and socioeconomic considerations, compared to the HCS Approach with carbon estimates and a land use planning tool
- It is a strength to have the HCS study focused on different aspects to the HCS Approach so we are not replicating our efforts
- The HCS Approach Steering Group is open to any recommendations from the SPOM HCS Study as well as opportunities for collaboration on common issues
- The HCS Approach is not just for palm oil development
- Shared goal of just one broadly accepted HCS methodology to avoid confusion

## Next Steps with HCS Approach

- HCS Approach Steering Group overseeing standardisation.
- Working groups to be established on HCS/HCV/FPIC integration, and other key aspects
- Science Advisory Committee being established to provide science review and input into the methodology
- HCS Approach Toolkit in preparation
- Ongoing research, including SPOM HCS study, as well as trials and field implementation, will provide feedback and recommendations for future adaption, particularly across different forest regions
- HCS Approach field verification experience such as via POIG
- The mechanisms and approaches for the long-term conservation of HCS (and HCV) areas is still in process

24



Terima Kasih, Thank you

For more information:

Palm Oil Innovation Group (POIG): [info@poig.org](mailto:info@poig.org), [www.poig.org](http://www.poig.org)

HCS Approach Steering Group: [info@highcarbonstock.org](mailto:info@highcarbonstock.org)