


THE UNIVERSITY *of York*

**Socially and Environmentally Sustainable Oil palm  
Research (*SEnSOR*) project**

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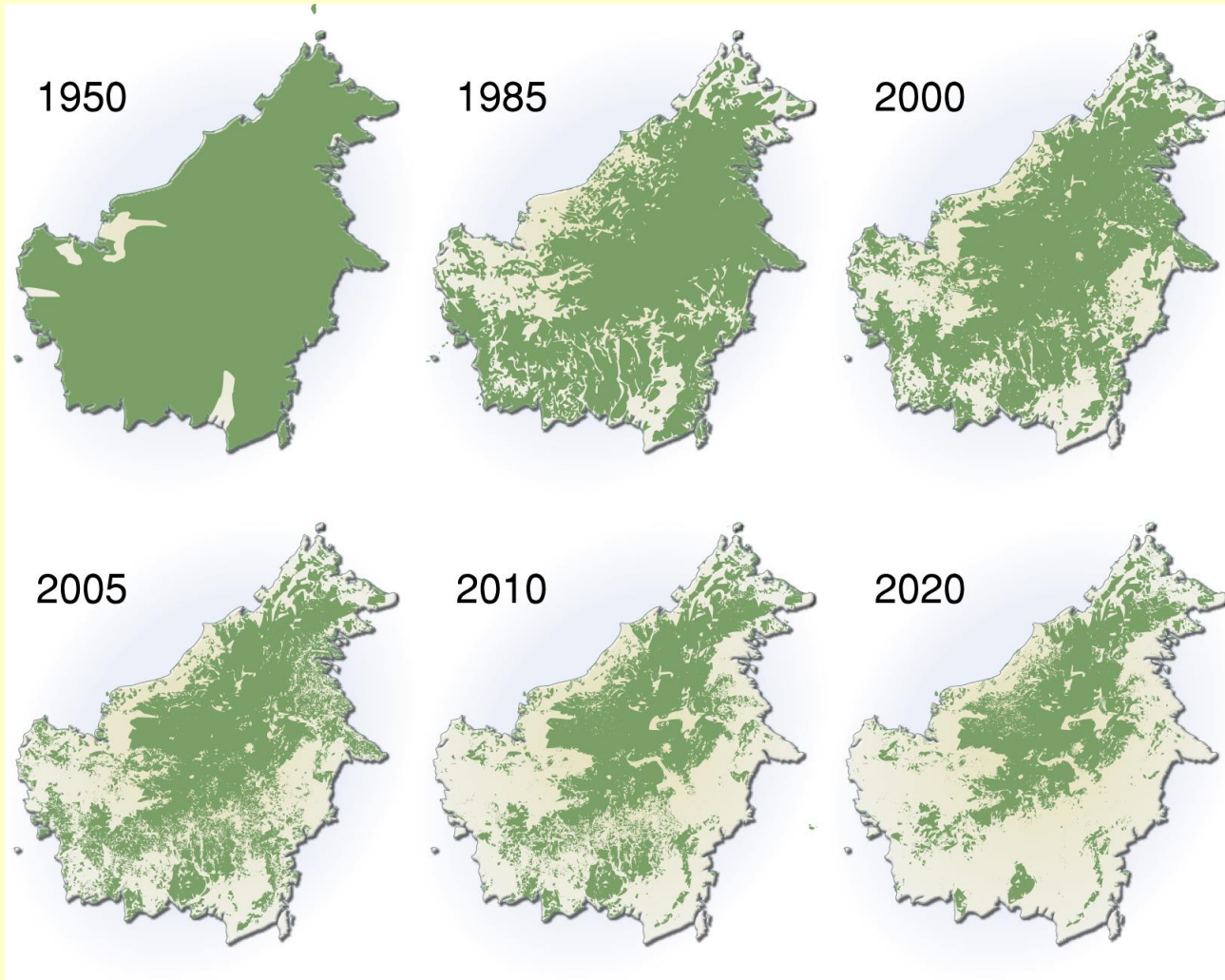
 [@janehillYork](https://twitter.com/janehillYork)



*YARN network meeting May 2017*



# Rainforest loss on Borneo





- Up to 100m tall
- Slow-growing
- Wind-dispersed
- Very dense wood
- Recalcitrant seeds
- Insect pollinated
- Mast fruiting

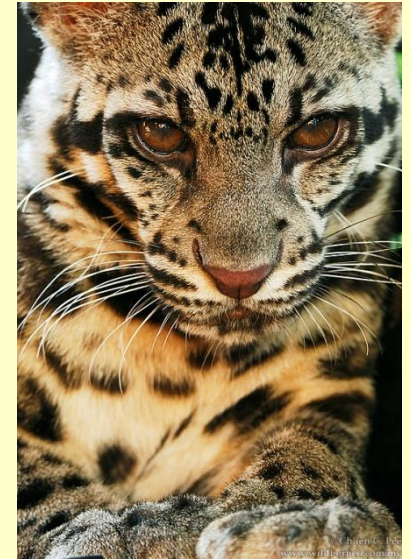
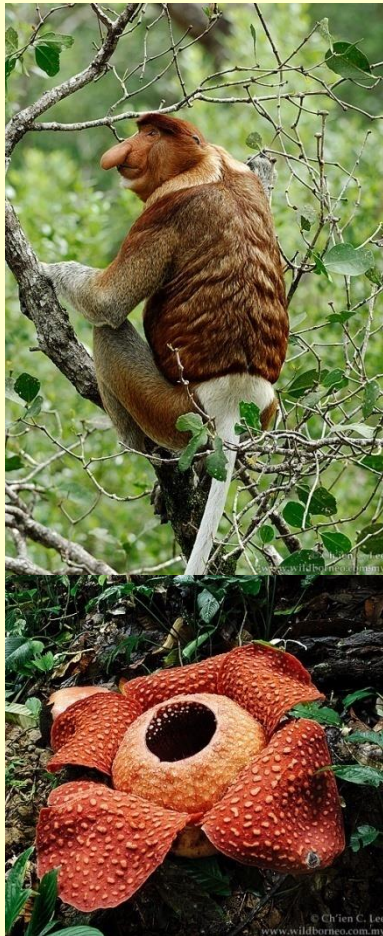


Very high timber yields (> 150 m<sup>3</sup> ha<sup>-1</sup> in some cases)





Thus very high timber yields coincide with high biodiversity on the island of Borneo



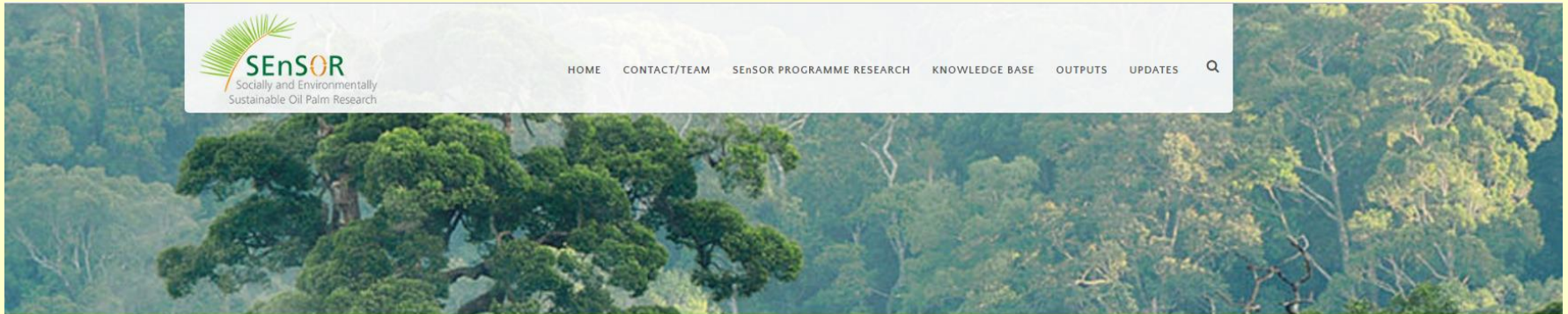
Many thanks to Ch'ien Lee for use of images



Oil Palm *Elaeis guineensis*



Palm oil is present in many food products, as well as soap and detergents, cosmetics. It has 5 times as much oil as soya bean or rape seed oil, and so is a very valuable crop. In addition, rape seed and soya are often used as biofuels not food, increasing the demand for palm oil for food.



HOME CONTACT/TEAM SEnSOR PROGRAMME RESEARCH KNOWLEDGE BASE OUTPUTS UPDATES 

## The SEnSOR Programme

The **Socially and Environmentally Sustainable Oil palm Research (SEnSOR)** programme is an integrated multi-disciplinary research programme designed to fill key knowledge gaps in testing and developing the RSPO's Principles and Criteria for sustainability in oil palm agriculture.

The five year programme will deliver a robust scientific evidence base for RSPO's Principles and Criteria, strengthening the credibility of RSPO's approach to sustainability, and thus providing benefits for People, Planet and Profit by:

1. Creating confidence in RSPO certified palm oil for users, investors and the public.
2. Ensuring that growers' efforts and investments in sustainable practices are cost-effective and have market value.
3. Safe-guarding the environment and society for the long term through the rigorous testing and development of practices which deliver significant benefits.

These knowledge gaps were identified from a RSPO-commissioned scoping study based on a comprehensive literature review, online surveys and face-to-face interviews with stakeholders and scientists. The knowledge gaps fall into five Topic Areas: **1) Soil and Water, 2) Greenhouse Gases and Air Quality, 3) Biodiversity, 4) Participatory Processes and Rights, and 5) Livelihoods**. These Topic Areas are integrated by three cross-cutting Key Themes **1) The HCV Process, 2) Agricultural Best Practice, and 3) Cost-Benefit Analysis**. The research will be conducted by leading scientists from internationally renowned institutions using state-of-the-art techniques, and coordinated through the SE Asia Rainforest Research Partnership (SEARRP).

The SEnSOR programme will create maximum impact, locally and internationally, through effective dissemination of findings to the RSPO, stakeholders, governments and NGOs so that research output can directly inform policy and management practices – and by building scientific capacity in palm oil producing countries.

For further information a more detailed proposal [can be downloaded here.](#)



We are testing the impacts of the sustainability criteria for oil palm cultivation.  
5 year programme, funded by RSPO.





## 8 PRINCIPLES FOR GROWERS TO BE RSPO CERTIFIED

-  **1** Commitment to transparency
-  **2** Compliance with applicable laws and regulations
-  **3** Commitment to long-term economic and financial viability
-  **4** Use of appropriate best practices by growers and millers
-  **5** Environmental responsibility and conservation of natural resources and biodiversity
-  **6** Responsible consideration of employees, and of individuals and communities affected by growers and mills
-  **7** Responsible development of new plantings
-  **8** Commitment to continuous improvement in key areas of activity

**We are focusing our research and impacts study on P&Cs # 4-7**

## ***Roundtable for Sustainable Palm Oil: Principles & Criteria for sustainability***

- Biodiversity (e.g. planning for retaining forest areas with ‘High Conservation Values’);
- Soil & water conservation (e.g. retaining riparian strips);
- Carbon storage and GHG emissions (e.g. fertiliser use).
- Smallholder farmers (e.g. barriers to certification; costs & benefits of certification); FPIC.



## Examples of recent reports



**The Potential for Oil palm Landscapes to Support At Risk Species**

Released May 2016

We show that large tracts of forest are the most important for supporting at risk species, and so oil palm expansion should avoid converting and fragmenting these areas.



**Co-benefits for biodiversity and carbon in land planning decisions within oil palm landscapes**

Released September 2015

We show that there is high agreement between the responses of biodiversity and Above Ground Carbon to different land-cover types meaning that land-use decisions that benefit one are highly likely to benefit the other



**Assessing forest integrity: a preliminary test of a new, easy-to-use field methodology**

Released September 2016

We field tested the Forest Integrity Assessment for SE Asia, developed by the HCV resource network in collaboration with SEARRP to determine its effectiveness for discriminating between forest of different quality and disturbance.

## Other reports



- Impacts of climate change and forest fragmentation on tropical biodiversity and ecosystem functioning (NERC; Proforest);
- Restoration & rehabilitation of degraded tropical peatlands (NERC Newton);
- Biodiversity and carbon storage of degraded rainforests and oil palm plantations (Unilever);
- Climate change and consequences for crop yields (BBSRC, Unilever);
- Prioritising rainforest areas for increased protection (Rainforest Trust)