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

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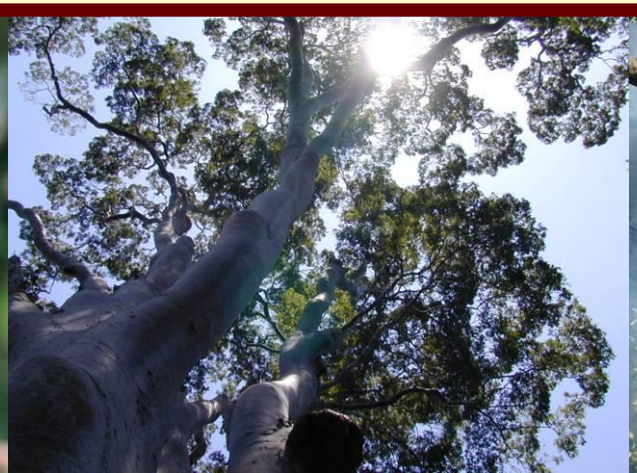
SEnSOR
Socially and Environmentally Sustainable Oil Palm Research

YARN network meeting May 2017



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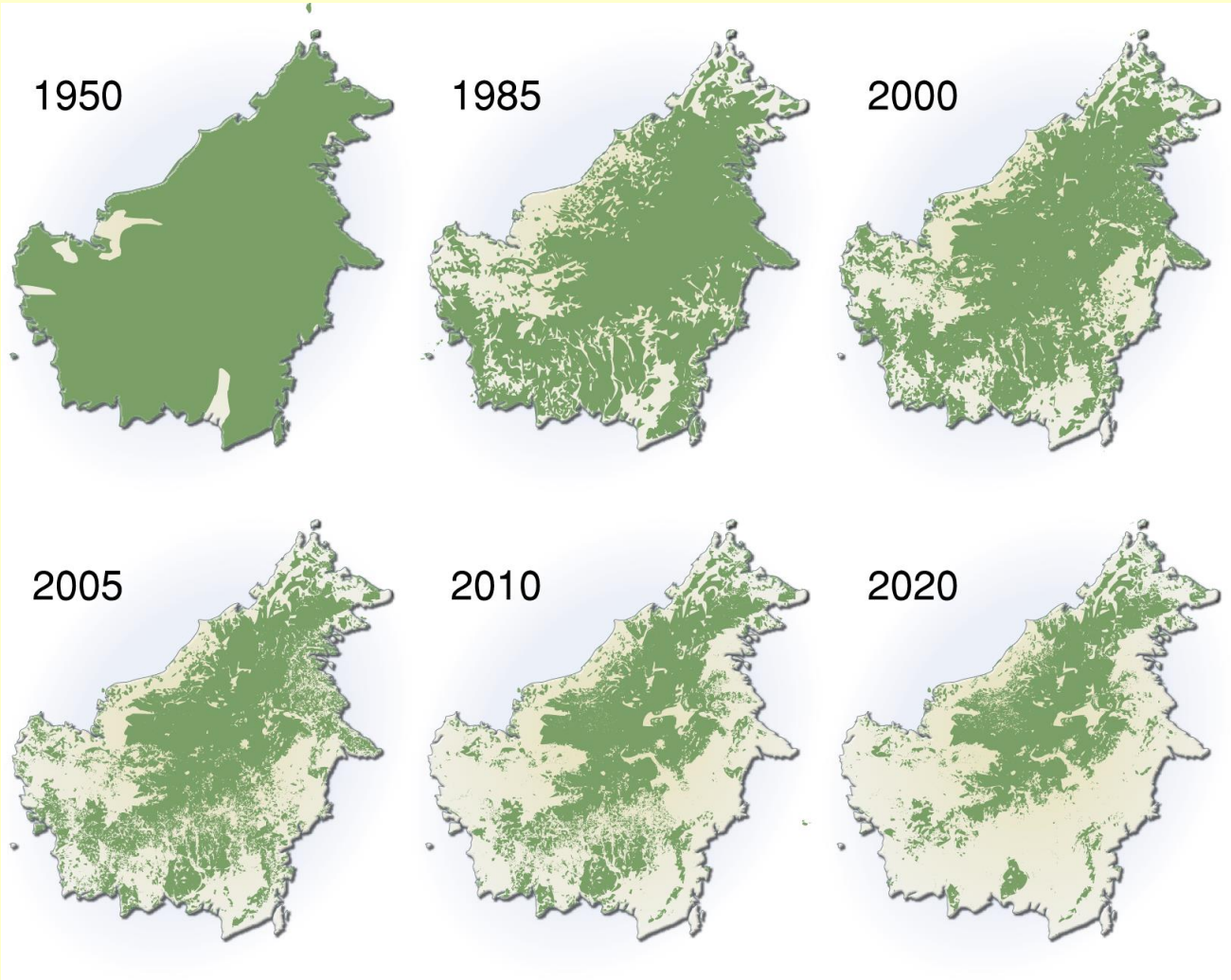
Rainforest loss on Borneo



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Forests dominated by dipterocarp trees

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

Very high timber yields (> 150 m^3 ha^{-1} in some cases)

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Iconic species are threatened

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*

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Uses of palm oil

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.

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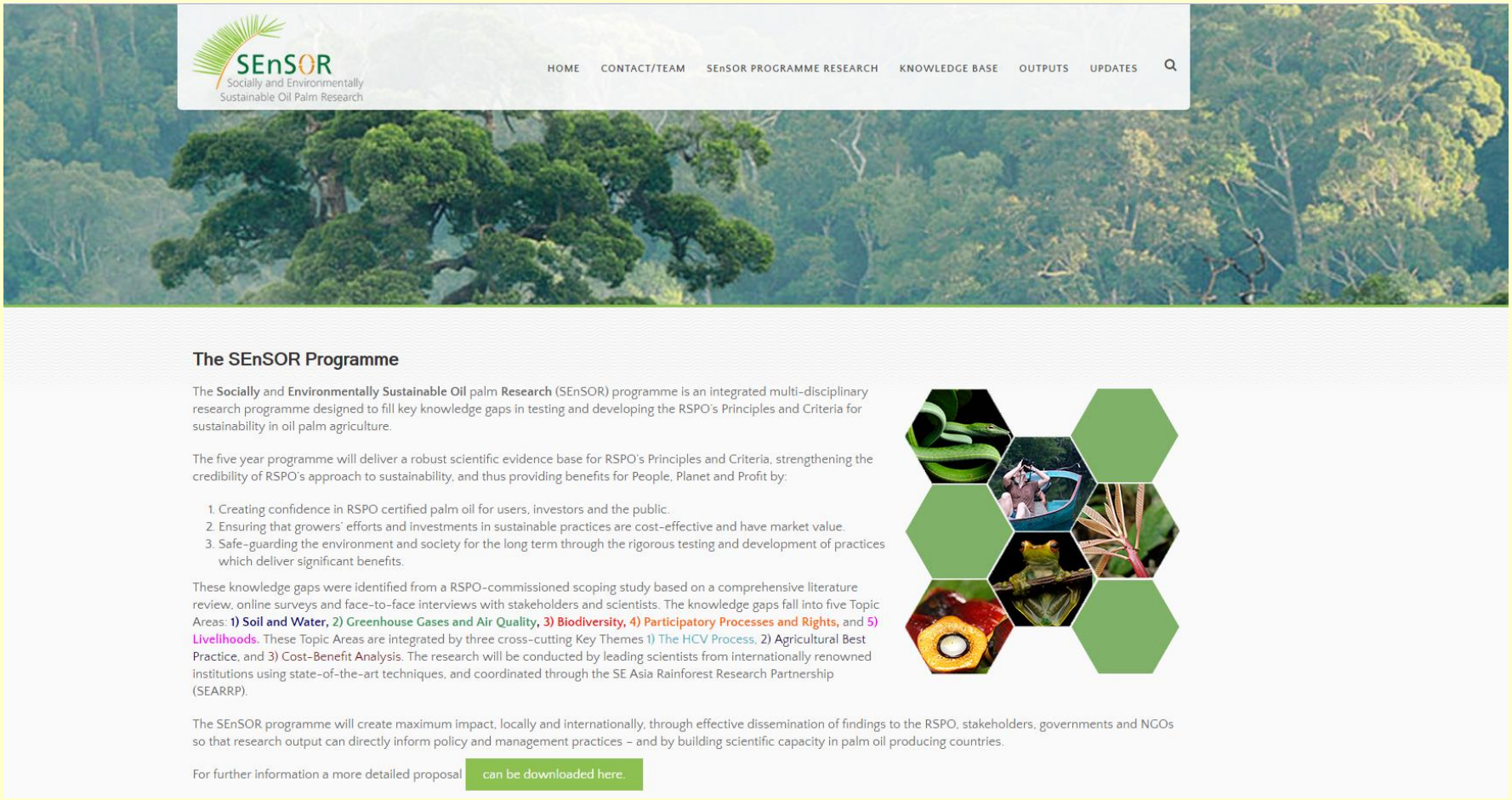
www.sensorproject.net



We are testing the impacts of the sustainability criteria for oil palm cultivation.

5 year programme, funded by RSPO.

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RSPO 8 Principles & Criteria for sustainability

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.

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Science-for-policy reports

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

Other projects in Asia

- 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)