

Partnerships in research for sustainable palm oil

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Sustainable oil palm (field) and palm oil(mill)

Policy and governance
 Governments
 IPSO/MSP0
 RSPO/ISCC
 Private sector
 NGOs

GOALS:
Environment
 - Avoid direct and indirect land use change (deforestation e.g.)
 - Increase Ecosystem services (Biodiversity, Carbon, ...)
 - Decrease GHG emissions
Provide smallholders income

4.Land sparing
Protecting HCV and HCS areas
 - Size
 - Connectivity
 - Quality
 - Monitoring
 - Management
 SenSOR project

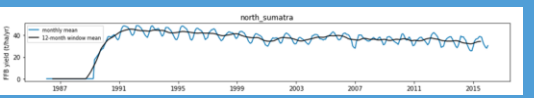
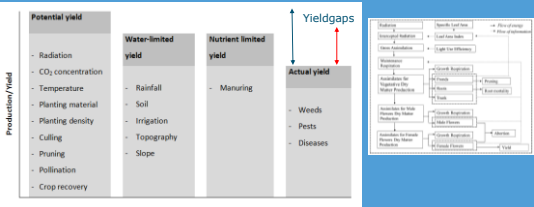
1.Sustainable Intensification
Increase palm oil yield/ha
 -Smallholders BMP (with SNV)
 -PALMSIM model to calculate yield gap
 Project with IOPRI and IAARD for Kalimantan and Sumatra

2.Land sharing
Intercropping
 - increase total yield/ha (LER)
 - ecosystem services
 - income diversification
 - WaNuCas model (ICRAF)
 1.SenSor project, Unlam and Palankaraya University Kalimantan (RSPO funding)
 2. MPOB in Malaysia (NL-LNV)

3.Resource use efficiency at mill
Adding value to biomass
 - POME
 - Trunks
 - Fronds
 MPOB in Malaysia (NL-LNV)



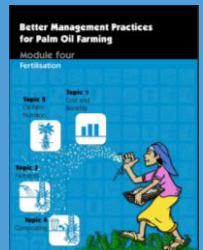
1.Intensification: Yield gap(s) and PALMSIM



Project with IOPRI and IAARD for Kalimantan and Sumatra



Best Management Practices to close yield gap at smallholders' fields



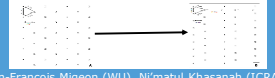
Research in Sintang, Kalimantan & Jambi, Sumatra, Indonesia
 Smallholder manual for BMP developed by WU with SNV



Lotte Woitzier (PhD)



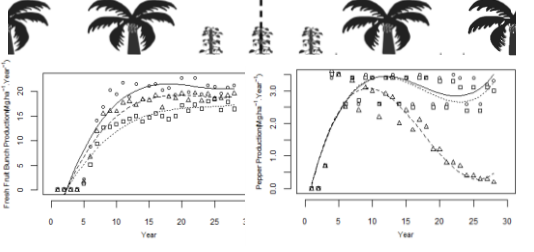
2.landsharing:Oilpalm/black pepper



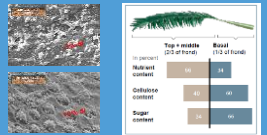
Adrien-Francois Migeon (WU), Ni'matul Khasanah (ICRAF)

Raja Zulkifli et al,2016 at MPOB

WaNuCas model study



3.Adding value to biomass



- The application of mesocarp fibres from palm oil residues is possible when POME is used to fuel the mill
- Potential for utilizing Oil Palm Fibre cellulose to produce packaging materials
- Investigating extraction of starch form oil palm trunks
- Using POME for bioplastics



Wolter.Elbersen@wur.nl and Pieterneel.Claassen@wur.nl With MPOB



4 Land sparing: biodiversity and carbon

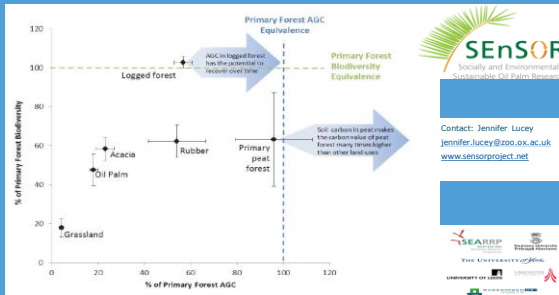


Figure 1. Levels of Biodiversity (total number of species per unit area) and Above Ground Carbon (AGC, Mg C/ha) represented as a percentage of the levels found in primary forest on mineral soil in Malaysia and Indonesia for different land-uses.

Partnerships in research

Complementarity in expertise
 Identification of knowledge gaps
 Addressing relevant societal questions

- setting research agenda
- assessment of impact
- advise on actions

Independence for credibility

Yet intensive communication with societal partners needed to enhance chances that results lead to action



Thank you for your attention



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