



Oil palm: Landscapes, market chains and investment flows

An issue bounded Sentinel Landscape

August, 2014



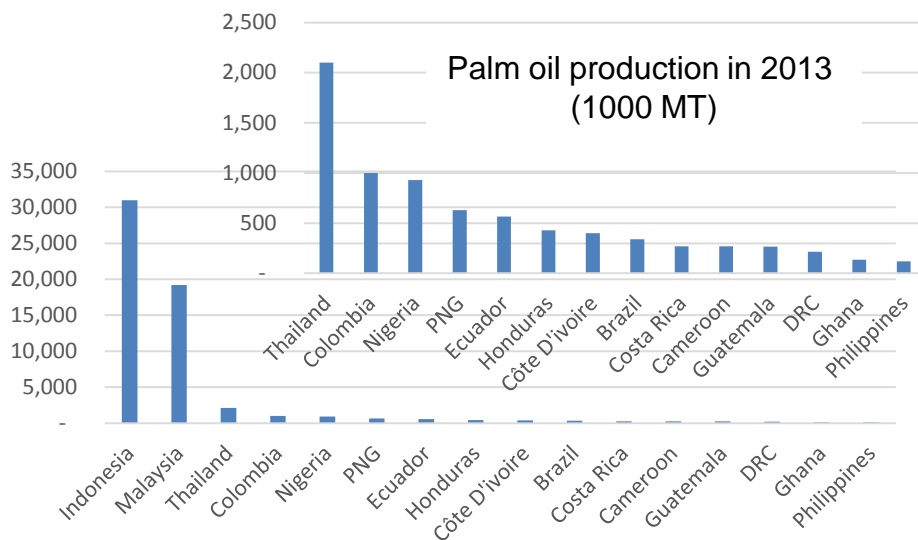
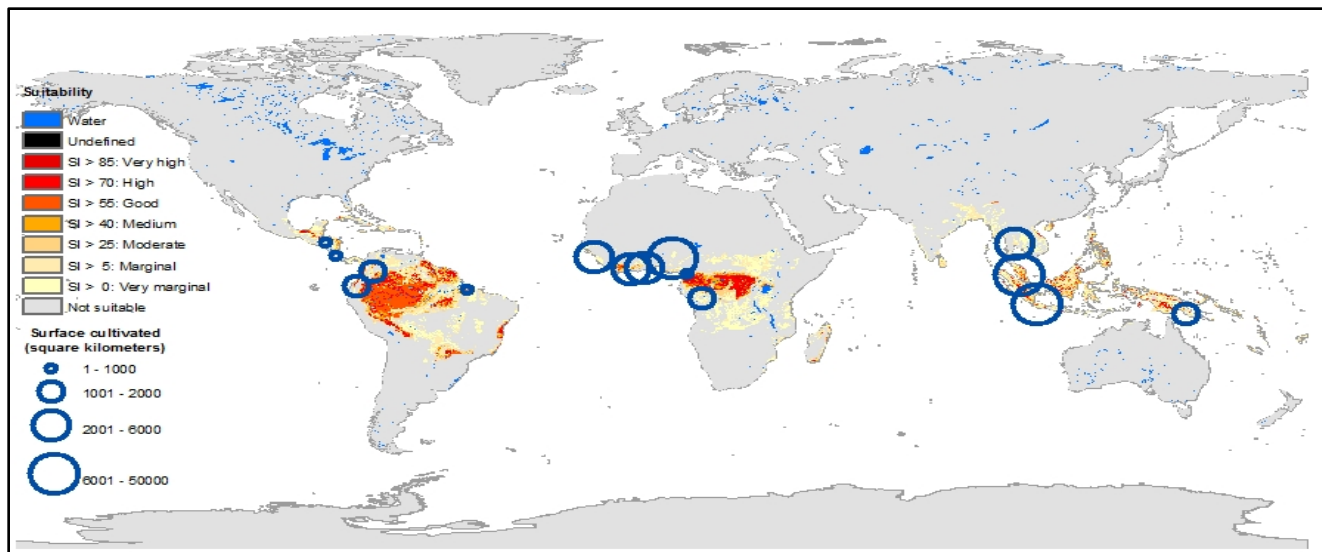
RESEARCH
PROGRAM ON
Forests, Trees and
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Livelihoods, Landscapes and Governance

Justification

- Oil palm development is one of the main drives that contributes to shape landscape change in the tropics primarily linked to globalized markets and transnational and domestic investment flows
- The sentinel landscape on oil palm (SLOP) focuses on assessing the functioning of the global value chain and investment flows and networks associated with a set of different landscapes where oil palm is developing in Southeast Asia, sub-Saharan Africa and Latin America
- The main focus is to explore the socio-economic and ecological transformations underway in these specific landscapes influenced by oil palm development through connecting financial flows with main production zones and processing and consumption centers

The geography of oil palm



- The growth in the sector is due to two Southeast Asian countries, followed by other countries in sub Saharan Africa and Latin America

Source: <http://www.indexmundi.com/>

Questions to address

- What is the role that oil palm expansion has on shaping local and national models of economic development and what is its associated impacts on land use change trajectories over time?
- What is the role of state policies vis-à-vis corporate strategies in the adoption of disparate production systems and business models under diverse socio-political and economical contexts across regions?
- Under what business models can oil palm development contribute to achieve better social impacts in poverty reduction while simultaneously result in lower impacts on forest conservation?
- What policy frameworks and governance mechanisms are more effective to reduce the negative impacts, and to promote more sustainable and inclusive business models of oil palm production?

Some hypothesis

- Oil palm plays an increasing role in economic development but greater multiplier benefits can be achieved when growing involvement of smallholders is achieved while this may affect total overall productivity and economic value
- Under similar market and environmental conditions, small-scale production systems produce better environmental and social outcomes than large-scale plantation systems, but important social stratification among oil palm producers tends to develop over time
- Market-based mechanisms (e.g. certification standards) do not necessarily deliver better environmental stewardship due to high level of compromises regarding minimum standards as well as changes in global market players



Our team

- **Coordinator:** Pablo Pacheco (CIFOR)
- **Brazil:** Frederico Brandão (CIFOR), links with CIRAD and EMBRAPA
- **Cameroon:** Patrice Levang (IRD/CIFOR), Laurene Feintrenie (CIRAD), Raymond Nkongho (University of Montpellier), links with WWF, Ministry of Agriculture and UNEXPALM
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- **Malaysia:** Faisal Noor (independent), links with SLDB in Sabah
- **Nigeria:** George Schoneveld (CIFOR)
- **Peru:** Ayme Muzo (independent), Jason Donovan (ICRAF), Valentina Robiglio (ICRAF), Claudia Silva (ICRAF) links with University of Ucayali
- **Others:** Lesley Potter (ANU) and Santi Chintia (CIFOR)

Selected oil palm landscapes



Landscapes in 7 countries:
Cameroon and Nigeria in
sub-Saharan Africa,
Malaysia and Indonesia in
Southeast Asia and
Colombia, Peru, and Brazil
in South America.

- A significant expansion of oil palm in Indonesia and Malaysia, which has been driven by large-scale plantations but with a growing involvement of smallholders over time
- Oil palm is part of traditional agricultural systems in Nigeria and Cameroon, yet plantations expand increasingly driven by local elites and the arrival of foreign large-scale investors
- Plantations are relatively well developed in Colombia, with larger expansion in the Llanos Orientales driven by medium-scale domestic investors, with some “alliance” schemes
- In Peru, smallholder cooperatives constitute important actors in oil palm expansion along with a few industrial groups. In Brazil, oil palm expands due to few large- and medium-scale companies, and integration of smallholders in the business is still slow.

Secondary data collection

- Main available spatial and statistical information has been collected with regard to oil palm development in the different countries selected as part of the Oil Palm Sentinel Landscapes network.
- The information has covered four main areas of interests:
 - Biophysical attributes of the landscape (e.g. soils, temperature, vegetation)
 - Land use and land tenure (including deforestation trends)
 - Production and processing (e.g. volume, prices, processing capacity, markets)
 - Infrastructure (e.g. roads, mills)
- We are still in process of systematizing this information, which is relatively uneven depending of the country. More complete statistical datasets are available for Indonesia, Malaysia, and Colombia.

Difficulties encountered with secondary data collection

- Not an easy process to bring different people/institutions on board
- Some data cannot be accessed while it should be publicly available
- Many data is available but quite scattered and fragmented
- Difficult to keep track of work of national partners in some cases
- Some data (e.g. mill operations, investment, yields) are classified
- National agencies skeptical about sharing data with international organizations on oil palm and natural resource management

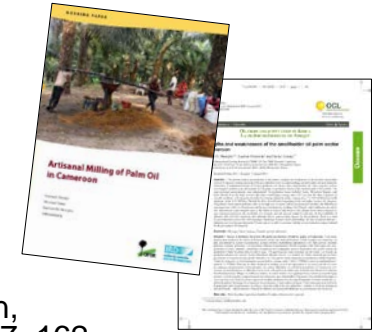


Primary data collection

	Colombia	Peru	Malaysia	Cameroon	Indonesia	Nigeria	Brazil
Land use change analysis	Updating a map of oil palm areas available, from to 2008 to 2013	Mapping oil palm areas in 3 periods based on LANDSAT	Mapping oil palm and other crops in 3 periods based on LANDSAT and time series	Mapping oil palm areas based on LANDSAT and SPOT images	Land use assessment based on LANDSAT for Kalimantan	Completed LUC analysis in 2 periods based on LANDSAT	Updating a map of oil palm areas available to 2008 for 3 periods based on LANDSAT
Survey to smallholders	Carried out HH survey to 144 smallholders in 3 different zones (north, center and east)	Carried out 230 HH surveys in the provinces of San Martin and Ucayali	Carried out 104 HH surveys Eastern Sabah, Malaysia (Lormalong and Apas Balung)	HH data has been collected in four major palm oil producing basins: Eseka, Dibombari, Muyuka, and Mundemba-Lobe	HH data is still in process of being collected in East Kalimantan (Berau district) and West Kalimantan (Kapas Hulu)	No carried out	In process of negotiation and definition
Interviews to planters and oil palm mills	5 companies interviewed	5 companies interviewed	2 planters interviewed and 124 total Geo coded locality CPO mills were obtained	Completed interviews to artisanal oil palm millers	Interviews to select companies will be completed in late 2014	Completed interviews to 9 oil palm plantations	In process of negotiation and definition



Main publications



Completed

- Schoneveld, G. 2014. The politics of the forest frontier: Negotiating between conservation, development, and indigenous rights in Cross River State, Nigeria. *Land Use Policy* 38:147–162
- Nkongho R.N., L. Feintrenie and P. Levang. 2014. Strengths and weaknesses of the smallholder oil palm sector in Cameroon. *OCL*: 21(2). D208
- Nkongho, R.N., Y. Nchanji, O. Tataw and P. Levang. 2014. Less oil but more money! Artisanal palm oil milling in Cameroon. *African Journal of Agricultural Research* 9(20): 1586-1596
- Nkongho R.N., L. Feintrenie and P. Levang. 2014. The non-industrial palm oil sector in Cameroon. *Working Paper* 139, CIFOR, Bogor, Indonesia
- Ndjogui, T.E., R.N. Nkongho, s. Rafflegeau, L. Feintrenie and P. Levang. 2014. *Historique du secteur palmier à huile au Cameroun*. Document Occasionnel 109. CIFOR, Bogor, Indonésie

Under review

- Potter, L. *A review on oil palm expansion and main associated trends in seven countries: Indonesia, Malaysia, Colombia, Peru, Brazil, Nigeria, Cameroon*. Occasional Paper, CIFOR, Bogor, Indonesia
- Rueda, A. and P. Pacheco. *Palma de aceite en Colombia: Políticas, dinámicas sociales y modelos de producción* Occasional Paper, CIFOR, Bogor, Indonesia

In process

- Oil palm development linked to smallholder cooperatives in Peru
- Land use trajectories and business models of oil palm in Colombia
- Oil palm development trends and implications in Sabah, Malaysia
- Land use trajectories and implications of oil palm expansion in Para, Brazil
- A comparative analysis of oil palm development in Sabah, Cameroon, Colombia and Peru



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The CGIAR Research Program on Forests, Trees and Agroforestry is a collaborative program aims to enhance the management and use of forests, agroforestry and tree genetic resources across the landscape from forests to farms. CIFOR leads the program in partnership with Bioversity International, CIRAD (Centre de coopération internationale en recherche agronomique pour le développement), the International Center for Tropical Agriculture and the World Agroforestry Centre.

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