

A new trend in palm oil production in the context of changing global demands: a portrayal of oil palm development in Riau Province, Sumatra, Indonesia



photo: Kurniatun Hairiyah

Key findings

- Widespread expansion of oil palm plantations by independent growers, coupled with the emergence of new private actors (operating within a land area of a couple of hundred hectares) are clearly contributing to transboundary environmental problems.
- Spontaneous frontier development has extended beyond the Indonesian government's control, and in many cases these areas are being unsustainably managed, infringing the principles of environmental conservation.
- Field observations revealed that oil palm expansion by independent players, including smallholders, involves massive land transfer. Local communities play an important role facilitating the expansion of oil palm plantations in these areas
- From the State's perspective, independent oil palm growers, who are mostly excluded in the official data, should be seen as major actors in landscape management.

Recommendation

- There is a need to include the perceptions and viewpoints of independent oil palm growers in land use management.
- There is a need to improve regulations, transparency, and implementation processes to control the expansion of palm oil plantations, not only the large scale plantations, including the independent growers (smallholders and medium scale).
- There is a need to conduct more micro level studies to be able to better understand the particular characteristics of independent oil palm growers.
- The Indonesian government, as a regulator, should formulate a clear spatial plan that indicates where new oil palm plantations are allowed, and also clearly demarcates "no-go" areas for oil palm expansion.
- There is an urgent need for unambiguous regulations regarding customary land claims and the authority of local leaders to sell land.

Palm oil production and global market

Along with growing recognition that palm oil is an important edible oil, and also a potential biofuel raw material, the heated debate and controversy revolving around the palm oil industry has become increasingly complex over time. This debate extends across the entire spectrum of the industry from how and where oil palm trees are cultivated to dietary issues pertaining to consumption of food that contains palm oil-based ingredients.

In response to urgent and pressing global calls for sustainably produced palm oil, the Roundtable on Sustainable Palm Oil (RSPO) was formed in 2004 (www.rspo.org). This global flagship certification body for palm oil production has been proactively engaged with oil palm growers and processors, food companies, retailers, NGOs and investors to work together towards creating a global supply of palm oil that is produced in a socially and environmentally responsible way by initiating RSPO principles and criteria (RSPO P&C).

However, on the supply side, the share of palm oil in the world's vegetable oil market steadily increased from 30% in 2007^[1] to 39% in 2014.^[2] Global

vegetable oil data shows that the trend for palm oil will be positive and remain dominant in the global market supply (Figure 1). According to Corley,^[3] future demands for edible oil will probably reach around 240 MT by 2050, and most of the additional oil may be palm oil, which has the lowest production cost of the major vegetable oils. The implication is that the area under oil palm (*Elaeisguineensis*) production will continue to expand. Excluding future demands for biofuel production, Corley estimates that an additional 12 million ha of palms could be required if average yields continue to rise at the same rate as in the past.

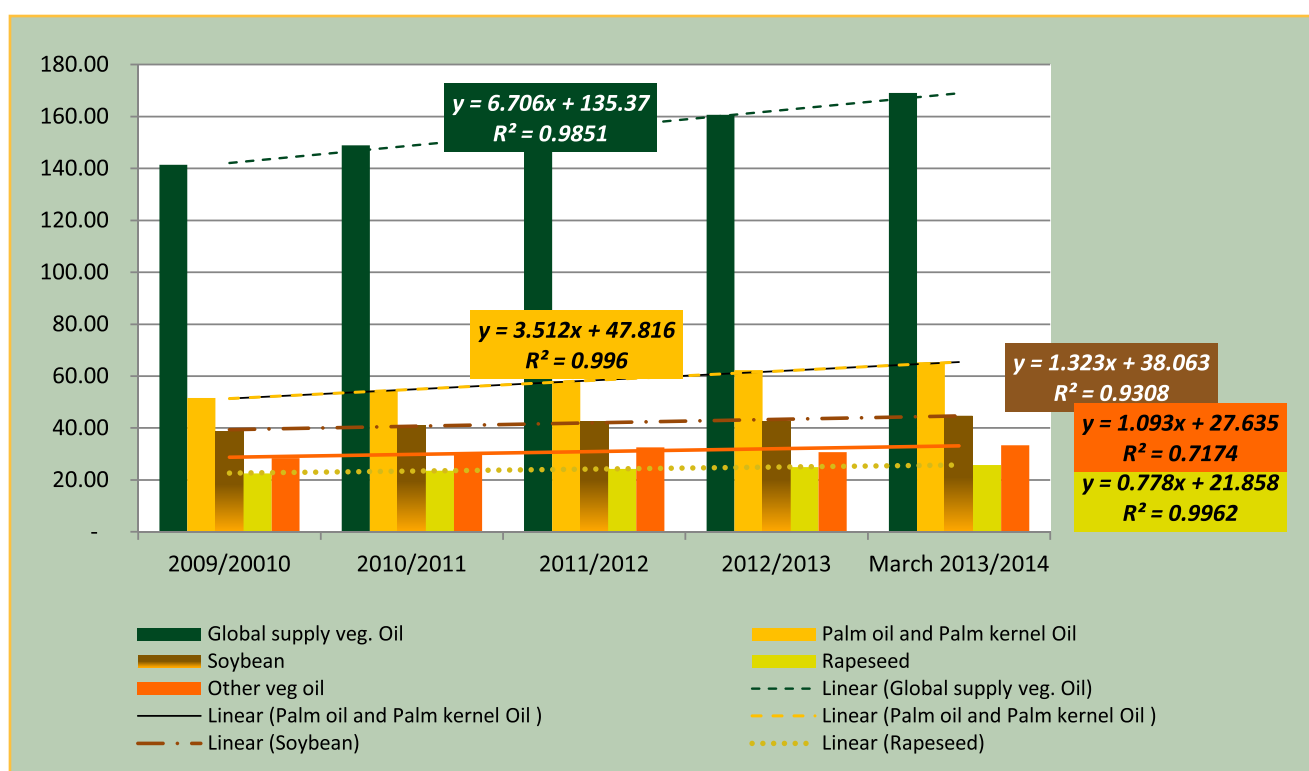
Examining further global statistics on oil palm, it is noteworthy that both the planted area and productivity per hectare of oil palm have significantly increased within the last 50 years. Planted areas expanded from 3.6 million ha in 1961 to 16.4 million ha in 2011, whilst Crude Palm Oil (CPO) production increased exponentially from 1.4 million MT in 1961 to nearly 50 million MT in 2011 (see Table 1). The expansion of oil palm plantation, thus, appears to be inevitable, and may result in the transformation of tropical landscapes in the near future.^[4]

[1] Carter, C., W. Finley, J. Fry, D. Jackson and L. Willis. 2007. "Palm oil markets and future supply." *European Journal of Lipid Science and Technology*, 109 (4):307–314, DOI: 10.1002/ejlt.200600256.

[2] USDA. 2014. *Oilseeds: World Markets and Trade, March 2014*.

[3] Corley, R.H.V. 2012. "How much palm oil do we need?" *Environment Science and Policy* 12: 134–139.

[4] Sayer, J., J. Ghazoul, P. Nelson, P. Agni Klintuni Boedhihartono. 2012. "Oil palm expansion transforms tropical landscapes and livelihoods." *Global Food Security* 1: 114–119.



Source: USDA. (2014) *Oilseeds: World Markets and Trade, March 2014*.

Figure 1. Global supply and distribution of vegetable oils: 2009 – March 2014

Table 1. Global planted area and CPO production 1961–2011

	1961		1981		2001		2011	
	Area	Palm oil production	Area	Palm oil production	Area	Palm oil production	Area	Palm oil production
Nigeria	2.70	0.67	2.00	0.53	3.18	0.90	3.20	1.35
Malaysia	0.04	0.09	0.85	2.82	3.31	11.80	4.01	18.91
Indonesia	0.07	0.15	0.23	0.80	2.20	8.40	6.09	21.45
Global	3.62	1.48	4.08	5.30	10.61	24.84	16.38	48.55

Source: FAOSTAT

Note : area in million ha, and CPO production in million MT

Indonesian palm oil: Exports

The major share of palm oil production in Indonesia is mostly for export. Palm oil statistics indicate that about 85% of Indonesia's palm oil production in 2011 was exported (BPS, 2012). Export destinations are mostly Asian countries (70%). India is the largest importer, followed by China, Malaysia, Singapore and other Asian countries like Pakistan and Bangladesh (see Figure 2). The rapid growth of emerging markets in India and China has been central to the increasing demand for Indonesian palm oil. It is also noteworthy that exports to Malaysia increased from 0.38 million MT in 2007 (3% of the total exports) to 1.53 million MT (9% of the total exports) in 2011. This rise is most probably linked to the Malaysian-owned oil palm plantations operating in Indonesia. Exports to European countries accounted for 20% of the total exports in 2010.

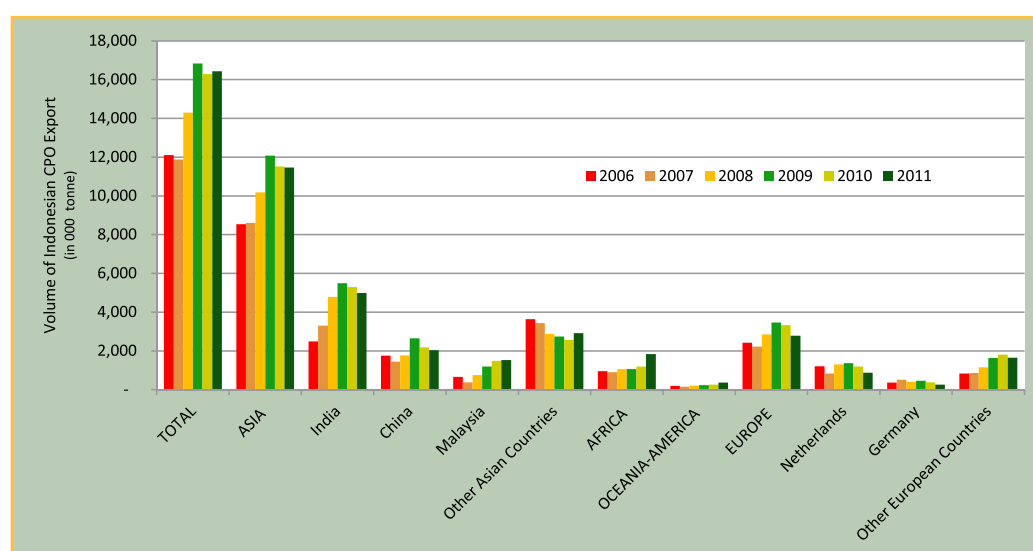
In 2012, the total export value of CPO and its derivatives was USD 19.11 billion, contributing 12.5% of the total value of Indonesia's non-oil and gas exports in the same year. The Indonesian government has already given the signal to increase palm oil production to 40 million MT by 2020. Oil palm expansion will, thus, continue.

Oil Palm expansion in Riau province : a new trend and associated problems

The Indonesian palm oil sub-sector, post 1998, has been entering a 'laissez-faire' phase which, in line with prevailing decentralization policies,^[5] entails a transition from a developmental approach to a neoliberal and market-driven model. This has resulted in the widespread opening up of opportunities for independent oil palm growers. In regions such as Riau Province, which have a well-developed palm oil industry, the expansion of oil palm plantations cultivated by independent smallholders is becoming more extensive, with the emergence of new actors operating independently within an area of a couple of hundred hectares. This phenomenon is evidently contributing to trans-boundary environmental problems.^[6] While the expansion of oil palm cultivation used to be driven exclusively by large-

[5] McCarthy, J. F. 2010. "Processes of inclusion and adverse incorporation: oil palm and agrarian change in Sumatra, Indonesia." *Journal of Peasant Studies* 37 (4): 821–850.

[6] Ekadinata A, van Noordwijk M, Budidarsono S, and Dewi S. 2013. *Hot spots in Riau, Haze in Singapore: The June 2013 event analyzed*. ASB Policybrief No. 33. Nairobi: ASB Partnership for the Tropical Forest Margins. 6p.



Sources: Badan Pusat Statistik /Statistics – Indonesia (2007; 2008; 2009; 2010; 2011; 2012). *Indonesia Oil Palm Statistics*. Jakarta. BPS

Figure 2. Indonesian palm oil export and destinations: 2006–2011



photo: Ni'matul Khasanah

scale commercial companies, today this is no longer the single case.

The contribution to oil palm expansion of independent oil palm growers—both local communities and migrants from neighbouring provinces and islands—has been quantitatively significant in Riau Province. In the last decade, oil palm smallholdings have dramatically increased from 480,328 ha (46% of total oil palm plantations) in 2001 to 1.1 million ha (61% of total oil palm plantations) in 2012. This has occurred hand in hand with large scale in-migration related to labour mobility, as well as land transfers from local communities to newcomers interested in oil palm cultivation. Spontaneous frontier development has continued at times beyond the government's control, and in many cases, the incorporated land is being unsustainably managed and infringing the principles of environmental conservation. From the perspective of the State, there is a need to recognize independent oil palm growers, who have mostly been excluded in the official data, as major actors in landscape management. However, from the perspective of the palm oil industry, the expansion of cultivation by independent oil palm growers, who mostly lack technical supervision, does not result in an optimal increase in oil palm production and leads to wastage of land resources.^[7]

Observations in the field revealed that expanded oil palm cultivation by independent players, including smallholders, involves massive land transfer. Land

[7] Widjaja FO. 2014. *Oil Palm Cultivation: Becoming a Model for Tomorrow's Sustainable Agriculture*. 4th International Conference on Oil Palm and the Environment (COPE). Bali, February 12, 2014

speculation, covered up by oil palm investment jargon, leading to the appropriation of hundreds or even thousands of hectares of land, has been a widespread topic of discussion. Local communities play an important role in facilitating the expansion of oil palm plantation in these areas. A household survey carried out in 2013 revealed that 71% of independent oil palm growers purchased land from local communities.^[8] Most of them were migrants. Moreover, 13% of local farmers acquired land for oil palm cultivation by occupying abandoned land surrounding their village.

Recent oil palm expansion poses a major dilemma in Riau province. Oil palm plantation leads to local development. On the other hand, massive uncontrolled land transfer for independent oil palm cultivation could disrupt inclusive and practice spatial planning principles and create potential environmental problems in the longer term.

There is a need for transparency and better regulation and implementation to control the expansion of oil palm in the province, as well as in other provinces. More studies are required in this field to be able to better understand the perspectives of oil palm growers. As the regulator, the government should formulate a clear and inclusive spatial plan that indicates where new oil palm plantations are allowed, and also clearly indicates "no-go" areas for oil palm expansion. There is also an urgent need for unambiguous regulation on customary land claims and of the authority of local leaders to sell land.

[8] Budidarsono S. 2014. *Smallholders' Engagement with Palm Oil Production: a portray of smallholder oil palm in Riau Province, Sumatra, Indonesia*. (unpublished field work report)

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