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Promoting sustainable palm oil: viewed from a global networks and flows perspective

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ABSTRACT

Global demand for palm oil is increasing to fulfil worldwide needs for cooking oil, food ingredients, biofuels, soap and other chemicals. In response, palm oil production is rapidly expanding which promotes economic growth in producing countries but also leads to serious environmental and social problems such as destruction of tropical forests, climate change and threats to small-holder livelihoods. For these reasons, palm oil production and use have become highly controversial. However, the global character of palm oil production and consumption, the number of different actors involved and its multiple uses makes promotion its sustainability highly complex. Individual nation-states can no longer control and regulate a global flow like palm oil and alternative governing networks appear involving private companies and NGOs. Acknowledging the roles of such governance networks with different forms of power means that relying only on economic and political power to explain current dynamics in the palm oil sector is inadequate.

In global networks like palm oil supply, encompassing transnational material flows and multiple actors, the relevance of each actor relates to his position in the network. Power in global palm oil supply is therefore not only related to their position in the (vertical) supply chains, but also to their role in the horizontal networks. New forms of power in networks arise from steering the networks (programming) and from connecting different networks (switching). In the multiple networks that compose global palm oil provision today, different programmers and switchers play critical roles. This is briefly illustrated in this paper on the basis of different cases of active steering in global palm oil provision.

1. Introduction

Palm oil is the most widely used vegetable oil for cooking, food processing, cosmetics, oleo chemicals and fuel. With a production of some 55 million tons in 2012,[1] palm oil represents over 30 per cent of the world's total production of vegetable oils.[2] Some 75 per cent of the total production is traded internationally (World Bank & IFC, 2011). Nowadays, palm oil is an ingredient of one in every two products available in the supermarket[3] although few consumers are aware of this. These characteristics illustrate that palm oil has become a typically globalised agro-food commodity, comparable to for instance maize and soybean, that dominate the contemporary world of agriculture and food. However, may be even more than other globalised agro-food products, palm oil has also become subject to controversies regarding the environmental and social consequences of its production, processing and trade. Many analyses of globalised palm oil supply are based on a rather singular understanding of power, as economic power in the hands of large economic players who use this to steer production and trade towards their private interests at the expense of poor producers and the environment. In this paper, I want to argue that this perspective is inadequate to really understand the current dynamics in global palm oil supply networks because social and environmental concerns should also be taken into account next to the economic dimension. Therefore, this paper intends to contribute to the analysis of the shifting power relationships in emerging governance arrangements addressing sustainability challenges in palm oil supply.

First I present the recent developments in global palm oil provision and the controversies that attract public attention. Then I introduce the notions of networks and flows to analyse the dynamics involved in governing present day global palm oil provision

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[1] See: http://www.bloomberg.com/news/2013-02-19/global-rapeseed-palm-oil-production-outlook-raised-by-oil-world.html (visited 5 July 2013).

[2] Palm oil contains in fact two different kind of oils: palm oil from the fruit primarily used in food products and palm kernel oil produced from the seed mostly used in the oleo chemical industry (Palm Oil Factsheet at RSPO-website). In this paper there is no distinction made between these two categories of palm oil.

[3] http://www.greenpalm.org/en/about-palm-oil/what-is-palm-oil-used-in (accessed 2 July 2012).

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and, after having briefly presented and discussed three cases to illustrate innovative governance arrangements promoting sustainability in global palm oil provision, finally conclude with a discussion on future perspectives.

2. Palm oil provision

Global palm oil production is expanding rapidly, particularly in Southeast Asia with Indonesia and Malaysia being the largest producers by far, although investments are spreading to other parts of the world as well. In Indonesia production tripled between 2000 and 2012, while in Malaysia palm oil production grew with more than 50 per cent over the same period. Not only production increased but also the harvested area of oil palm, for instance in the case of Indonesia[4] from 6.59 million hectares in 2010/11 to 7.28 million hectares in 2012/13 (USDA Foreign Agricultural Service, 2012). Most oil palm trees are grown on large plantations but still an important area is cultivated by smallholders, often in combination with larger plantations as production needs to be located in the vicinity of processing installations.[5] For instance, in Indonesia 44 per cent of national area of oil palm (responsible for 33 per cent of the national palm oil production) is in the hands of smallholders and in Thailand it is even 76 per cent of the national oil palm area. Worldwide some three million smallholder families are involved in oil palm cultivation (World Bank & IFC, 2011).

The growing oil palm area and the expanding palm oil production coincides with increasing palm oil trade; from 41 million MT in 2008/9 to more than 50 million MT in 2011/12 (USDA (US Department of Agriculture), 2012). (See Tables 1 – 3 for some recent data on global palm oil production and trade.) Most observers expect palm oil production and trade to continue their growth in the coming years.

As Table 1 clearly shows, Indonesia and Malaysia are the largest palm oil producers by far, but this imbalance is even more striking for palm oil exports (See Table 2).

Palm oil imports are much more evenly distributed over the different countries than the exports, as Table 3 clearly shows, although three importers, India, China and the EU, dominate.

These tables illustrate the transnational character of palm oil production and trade, underlining that the palm oil industry has become a global one. Among the reasons for this rapid expansion are the high yield oil palm delivers per hectare compared with other oil crops (3.7 tonnes/ha against 0.47 tonnes/ha for instance for soybean oil (See Product Board MVO, 2010)) against low costs. As cultivating oil palm has also been an important contributor to poverty alleviation and rural development (Gillespie, 2012; Teoh, 2010), it received considerable support from governments in the main producing countries, Malaysia and Indonesia. Developing countries, and even countries in transition, may consider the expansion of their palm oil industry a promising strategy for economic progress. Oil palm is a perennial crop and hence a steady source of oil production compared with seasonal oilseed crops, such as soybean and rapeseed. Also in processing, palm oil displays a large flexibility in being transformed into dozens of different food items, cosmetics, chemical products and biodiesel (Thoenes, 2006). After harvesting fresh bunches of oil palm fruits, they need rapid processing to maintain quality, so mills need to be located close to the plantation area. Refining crude palm oil may occur much further from the original production area. The production and initial processing of palm oil is concentrated in a limited number of large companies, as 50 large plantation groups cover 75 per cent of the global palm oil production and refining, trade is controlled for 75 per cent by 15 business groups and in the final processing stage some large multinational companies, such as Unilever and Nestlé, dominate albeit next to a large number of smaller firms (Nikoloyuk, 2009).

The expansion of the palm oil industry, particularly since the 1990s, often meant extending oil palm plantations into tropical forests. This process of burning and cutting large tracks of pristine forests generated widespread protests and growing concerns about the environmental and social impacts of palm oil production. It was in particular the vast forest fires in Indonesia and Papua New Guinea in 1997 that ignited a worldwide public debate on the destruction of tropical forests (Teoh, 2010). Nowadays, palm oil

Table 1
Top 10 palm oil producers in 2012.

Rank	Country	Production (1000 MT)
1	Indonesia	31,000
2	Malaysia	19,000
3	Thailand	2100
4	Colombia	1000
5	Nigeria	930
6	Papua New Guinea	630
7	Ecuador	550
8	Honduras	430
9	Côte D'Ivoire	400
10	Brazil	340

(Source: URL: www.indexmundi.com/agriculture/?commodity=palm-oil&graph=production, accessed 28 June 2013).

Table 2
Top 10 palm oil exporters in 2012.

Rank	Country	Exports (1000 MT)
1	Indonesia	21,000
2	Malaysia	17,200
3	Papua New Guinea	640
4	Thailand	550
5	United Arab Emirates	400
6	Other	350
7	Honduras	300
8	Côte D'Ivoire	300
9	Benin	290
10	Ecuador	280

(Source: URL: www.indexmundi.com/agriculture/?commodity=palm-oil&graph=exports, accessed 28 June 2013).

Table 3
Top 10 palm oil importers in 2012.

Rank	Country	Imports (1000 MT)
1	India	9000
2	China	6600
3	EU-27	5800
4	Pakistan	2450
5	Other	1775
6	Malaysia	1675
7	Egypt	1200
8	Bangladesh	1100
9	United States	1066
10	Singapore	850

(Source: URL: www.indexmundi.com/agriculture/?commodity=palm-oil&graph=imports, accessed 28 June 2013).

[4] Indonesia has imposed a forest moratorium in 2011 but this will only influence production and trade in a few years from now as oil palm trees only start producing after four years and remain productive until 25 years after planting with a peak between eight and 13 years (USDA Foreign Agricultural Service, 2012).

[5] The main reason is the need to prevent post-harvest losses and quality reduction, so harvested oil palm fruits need to be processed within 24 h which limits the distance over which they can be transported.