Transnational Institute (TNI) Agrarian Justice Program
THINK PIECE SERIES ON FLEX CROPS & COMMODITIES No. 5 May 2015

THE POLITICAL ECONOMY OF OIL PALM AS A FLEX CROP AND ITS IMPLICATIONS FOR TRANSNATIONAL ADVOCACY AND CAMPAIGNINGS: A PRELIMINARY DISCUSSION

Alberto Alonso-Fradejas, Juan Liu,
Tania Salerno and Yunan Xu

TNI

Transnational Institute (TNI) Agrarian Justice Program
THINK PIECE SERIES ON FLEX CROPS & COMMODITIES No. 5 May 2015

THE POLITICAL ECONOMY OF OIL PALM AS A FLEX CROP AND ITS IMPLICATIONS FOR TRANSNATIONAL ADVOCACY AND CAMPAIGNINGS: A PRELIMINARY DISCUSSION

Alberto Alonso-Fradejas, Juan Liu, Tania Salerno and Yunan Xu

OIL PALM: A GLOBALIZED 'GOLDEN CROP' ON THE RISE

For thousands of years, oil palm (*Elaeis guineensis*), a crop native to West Africa, has been used, processed and extracted for various purposes. Today, it is a globally traded commodity with numerous uses, including both food and non-food purposes. This transformation is largely based on the current value of oil palm as a 'flex crop' – a value that emerges from the converging world food, fuel, financial and environmental crises, and the subsequent transition towards 'a multi-centric global food system' (McMichael 2012: 684).

Flex crops and commodities are those with 'multiple uses (food, feed, fuel, industrial material) that are considered to be flexibly inter-changed' (Borras et al. 2014: 1). This concept can be traced back to that of 'substitutionism' in the bio-industrialization of agricultural commodities, put forward by Goodman, Sorj and Wilkinson in 1987 as they examined how 'the new biotechnologies will enhance the efficiency with which *all forms of biomass*, whether field crops, crop residues, wood or organic waste, *are converted in all uses*, not only into food products but also fuel and chemical' (Goodman et al. 1987: 136, emphasis in original). They maintained that biotechnologies, allowing for improved conversion/processing and fractionation of raw materials through industrial microbiology, would 'transform [the agricultural] product, whether food or non-food, into basic chemical constituents or intermediates with multiple competing uses' (Goodman et al. 1987: 141). This idea of substitutionism is linked to the multiple uses of a crop. Rexen and Munck take the argument further by proposing the logic of flexing among multiple uses (of cereals), arguing that, 'all the constituents are used as optimally as possible. Nothing is wasted...The proportions between the *different streams can easily be changed according to actual demand and price relationships in the market'* (1984 in Goodman et al. 1987: 182, emphasis added). Therefore, the value of flex crops is related to the versatility of its derived commodities in volatile markets. As Borras et al. explain, 'flex crops seem to reduce uncertainty in a single crop sector through diversification of the product portfolio, thereby enabling investors to better anticipate and more nimbly react to changing prices in either direction – e.g., to better exploit price spikes or to better withstand price shocks' (2014: 2).

To understand how investors may use flex crops to control risk and uncertainty, it is useful to analyze the flexing among multiple uses of oil palm within a 'value web', rather than alongside a 'value chain' (Borras et al. 2014). This approach is more applicable to the analysis of oil palm flexing as it makes way for the complexity of actors, processes, structures, and their interrelations, in regard to oil palm flexing. As Virchow et al. argue:

> We develop a biomass-based value web approach, in which the 'web perspective' is used as a multi-dimensional methodology to understand the *interrelation between several value chains*, to explore synergies and to identify inefficiencies in the entire biomass sector [...]. The web perspective focuses on the numerous alternative uses of raw products, including recycling processes and the cascading effects during the processing phase of the biomass utilization (2014: n.p.).

While oil palm is a contentious crop which has been at the centre of much debate regarding the economic and socio-ecological impacts of land conversion, forest destruction, and financialization, discussions on oil palm *flexing* remain at the 'anecdotal phase'. Borras et al. highlight the need to deepen understanding of the key elements of flexing in order to expand the discussion:

> To what extent this actually occurs, how this actually happens and what factors encourage/discourage, facilitate or block real flexing from happening in one sector vs. another, or from one geographic setting to the next, are all empirical questions that ought to be investigated more carefully – and urgently (2014: 8).

Since this is a relatively new path of analysis, the way oil palm as a flex crop is being used in response to global crises cannot be fully examined here. Instead, we offer a preliminary analysis of the extent to which the oil palm sector fits in the flex crop framework proposed by Borras et al. (2014), and examine the implications of this from a critical (agrarian) political economy perspective. Some fundamental questions are raised regarding oil palm flexing, including: What are oil palm's multiple uses today, and what is their relative importance? Who determines these uses? Why and how does flexing actually happen? What are the roles of different state, social and corporate actors in the flexing of oil palm?' How does this fit into discussions on the changing trends in the dominant food regime globally? And what are the implications for transnational political advocacy and campaigning efforts?

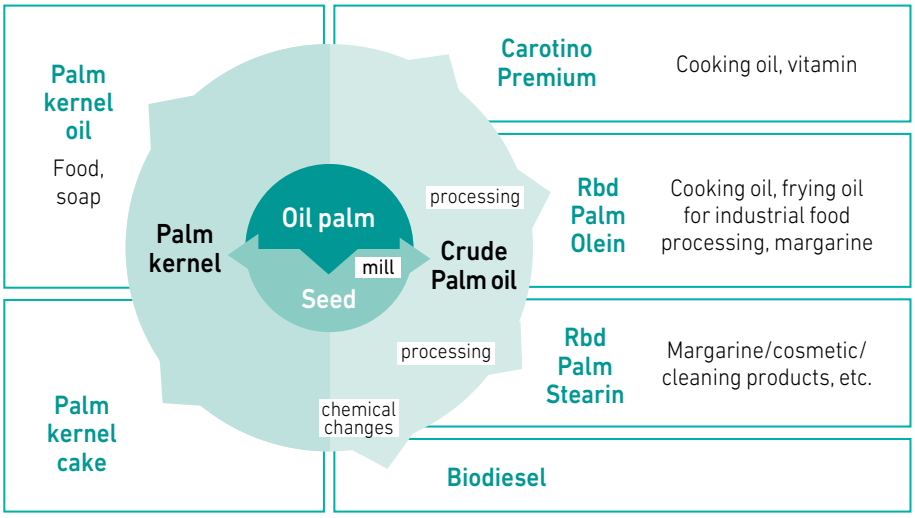
This paper asks more questions than it proposes answers in order to contribute to the growing call for research and policy advocacy in and around the flex crop phenomenon. To begin, we look at the multiple uses and values of oil palm. Second, we offer a discussion on oil palm's enhanced flexing possibilities as a way to understand its drivers, as well as the role different actors play in shaping the political economy of flexing among the multiple uses of oil palm. Finally, we draw some implications for transnational political advocacy and campaigning efforts.

THE INCREASING POSSIBILITIES OF FLEXING AMONG OIL PALM'S MULTIPLE PRODUCTS

According to the Technical Director of the Roundtable on Sustainable Palm Oil (RSPO), 'more than 50% of the products you find in a supermarket contain palm oil'.[1] Palm oil is already used in numerous products and since the 1950s has become deeply integrated into our daily lives.[2] It is not only in processed foods, but is also used for fuel and beauty products, meaning that in an average day a person is likely to use it several times, making oil palm a 'golden crop' for investors in the current agricultural system. The new uses currently being developed for palm oil, along with those related to its biomass, will make palm an even more essential crop in the future. From a critical political economy perspective, the implications of the rise of oil palm's popularity are related to how the research and development of its multiple uses and flexing possibilities have been carried out by a variety of interested actors – subsequently transforming this crop into a commodity targeted for investment and economic expansion.

To understand oil palm's increasing multiple uses and flexing possibilities, it is necessary to first distinguish between the multiple uses of oil palm as an *oilseed* and those being developed as a major provider of *biomass*. In the past, the multiple uses of oil palm were tied to a series of co- and by-products obtained in the process of crude palm oil (CPO) and palm kernel oil (PKO) extraction and refinement. Indeed, CPO and PKO can be then further refined and processed as either edible oil for cooking or other industrial foods, biodiesel, or in personal care and household care products. These dynamics demonstrate that the 'main products' and their 'by-products' are not fixed; rather they are interchangeable within the flexing framework. Figure 1 shows the different pathways taken by CPO and PKO oil palm through the refining process.

Figure 1 Multiple uses of oil palm as an oilseed crop



Source: Authors´ elaboration.

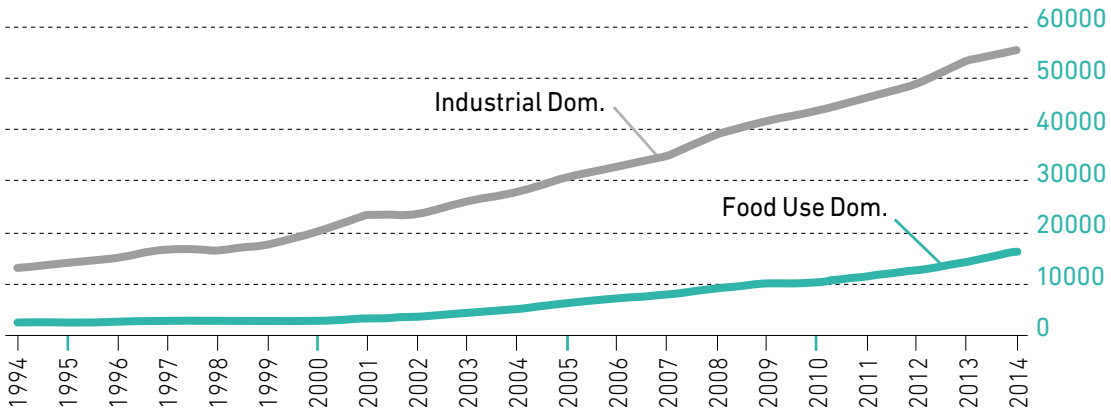
Flexing occurs across the multiple uses of crude palm oil and palm kernel oil (and their by-products), as represented in Figure 3 below. The *oil palm mill* is, therefore, the underpinning technology of the first generation of oil palm flexing. With the advancement of oleo-chemical techniques that allow for more extensive processing of CPO and PKO, there has been an increase in the use of palm oil for industrial and food products worldwide, as seen in Figure 2 below.

The industrial use of palm oil rose from 15% in 2001 to 29% in 2014, implying a growing diversification of the commodity's multiple uses. Major research and development efforts, carried out through public-private-partnerships and crystallizing in commercial ventures, are allowing for an expansion in the multiple uses of oil palm's abundant biomass.[5] These various uses are depicted in Figures 3 and 4, in relation to the Malaysian oil palm industry.

It is now also possible to produce ethanol out of oil palm biomass (Loh and Choo 2013: 9). Empty fruit husks and palm oil mill effluent (POME) are also used in 'fibre processing into mattresses, furniture-based manufacturing, pulp and paper-making, cement manufacturing, etc., besides being used for power generation in palm oil mills' (ibid: 8). Biogas from POME is also starting to be used to generate electricity for industrial plants and is being sold into the national grid (ibid: 4).

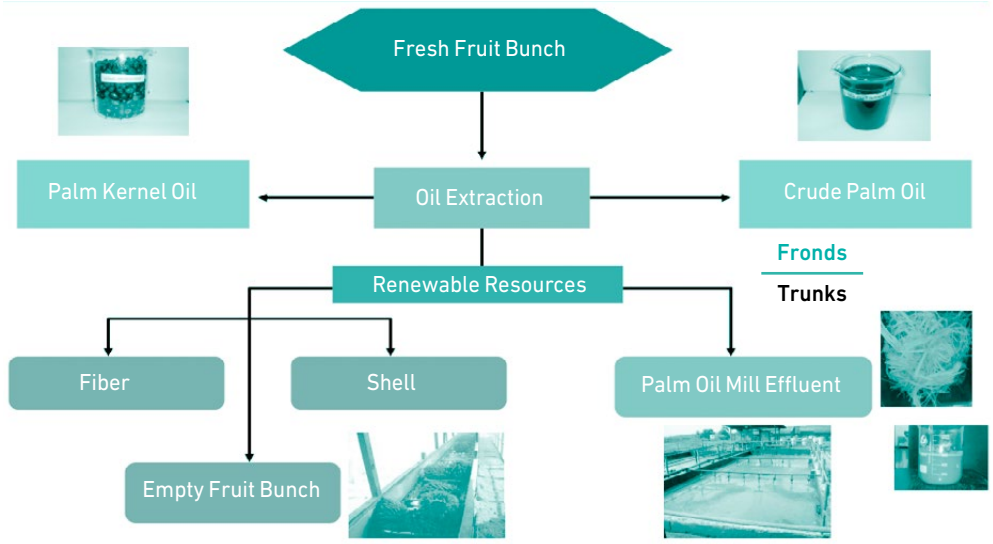
The 'zero emissions' and 'waste-to-wealth' messages presented in Figure 5 (below) will be further problematized in the next section, where initial ideas regarding how flexing is occurring are discussed. The (new) multiple uses of oil palm will be primarily emphasized here – meaning that if the oil palm mill is the central technology around which the first generation of palm oil flexing is based, the *oil palm bio-refinery* will be the key technology underpinning the second

Figure 2 The industrial and food domestic use of palm oil worldwide (1000 Metric Tons)



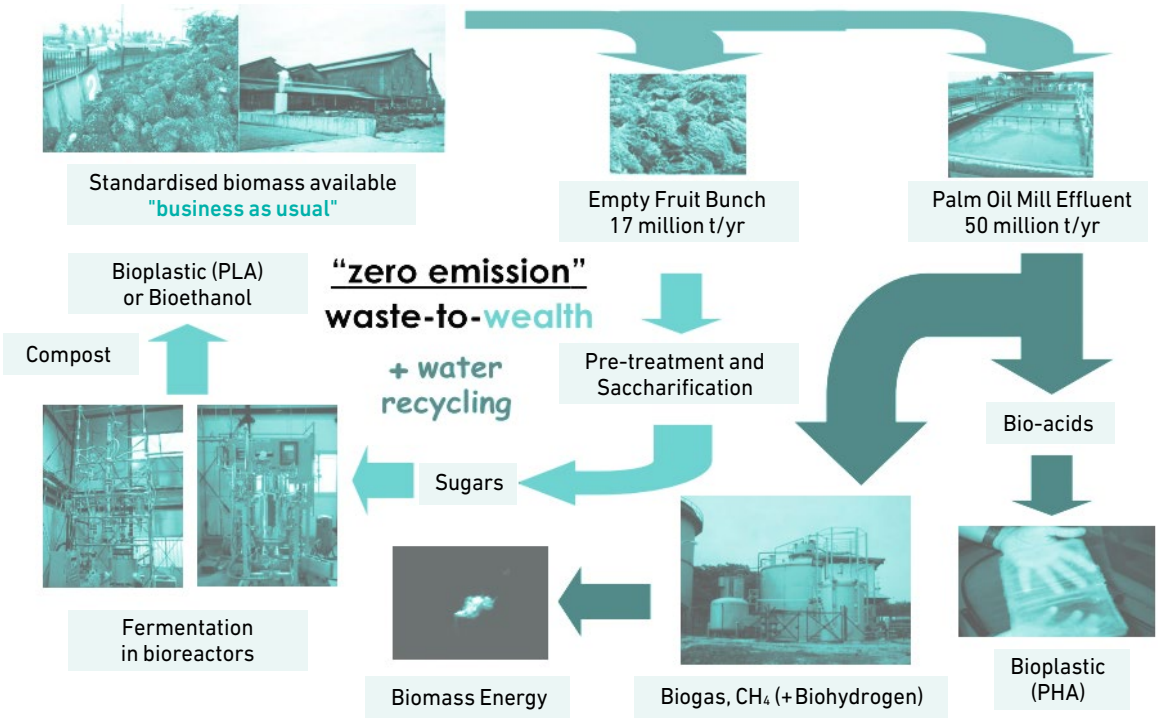
Source: USDA-FAS (1) data of 1993-2000: Oilseeds: World Markets and Trade (2006)[3]; (2) data of 2001-2013: Oilseeds: World Markets and Trade (2014).[4]

Figure 3 Multiple uses of oil palm as an oilseed and as biomass



Source: Hassan and Shirai 2013[6]

Figure 4 Multiple uses of oil palm biomass as a source of bioenergy, biofuels and biomaterials

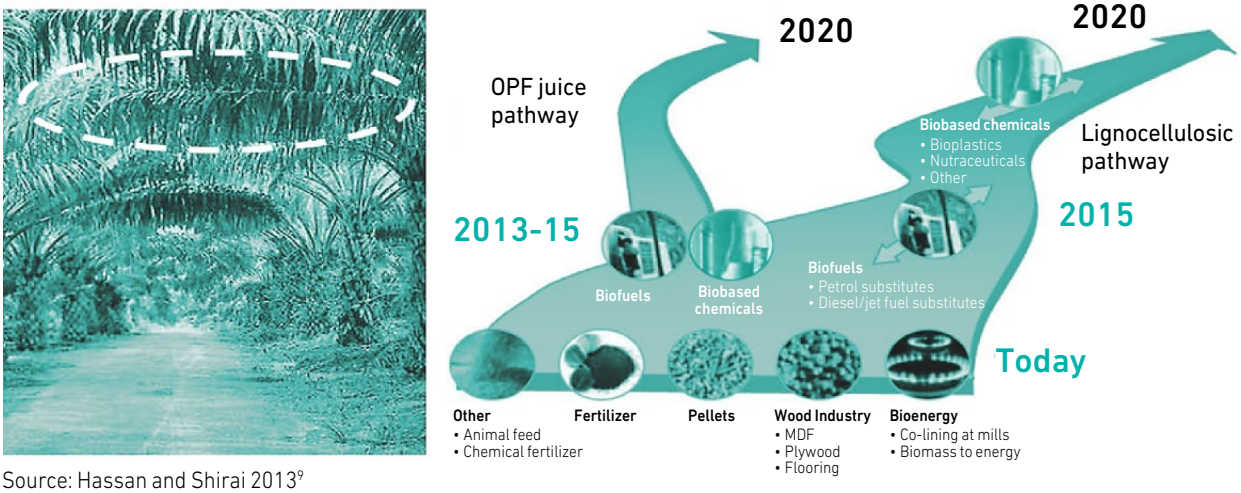


Source: Hassan and Shirai 2013[7]

generation of flexing. This second generation is emerging from the use of oil palm's biomass and from the new uses developed for the by-products generated during CPO and PKO extraction. This means there is no need to flex oil palm into either oil or biomass – as palm oil and oil palm's biomass are inputs that are simultaneously available for further flexing. As anticipated by Rexen and Munck in 1984, 'changing patterns of industrial demand based on generic constituents of crops suggest that agriculture will evolve toward *integrated biomass production systems* [via] *agricultural refineries*, which would undertake primary biomass processing' (Goodman et al. 1987: 181, emphasis added).

As a result of the advancement of bio-refineries, the multiple uses are being further developed to follow two main 'technological paths', as depicted below in Figure 5. One is that of the 'oil palm frond juice path'. This allows for furthering biofuels-/bio-chemical-based uses. Palm phytonutrients such as carotenes, vitamin E, squalene and sterols for pharmaceutical use can be extracted and produced out of palm biodiesel (Loh and Choo 2013: 11). The other is the 'lignocellulosic path', allowing also for more bio-chemical-based uses such as bioplastics, nutraceuticals[8] and others (Hassan and Shirai 2013). Altogether, these two future technological paths may lead to a 'third generation' of flexing possibilities among the increasing uses of oil palm.

Figure 5 Main technological paths for further developing multiple uses of oil palm biomass



Source: Hassan and Shirai 2013[9]

THE IMPLICATIONS OF STRENGTHENED FLEXIBILITY FOR THE OIL PALM VALUE WEB

According to Borras et al., 'if a crop or commodity use can be switched from one specific purpose to another with technical ease and with attractive economic return, then it is not difficult to imagine [...] the far-reaching political economic implications *when its multiple-ness meets flexible-ness*' (2014: 5, emphasis added). The previous section emphasized how oil palm meets the first of Borras et al.'s three 'minimum conditions' for multiple uses to be flexed, namely having the 'material basis' for multiple uses. In this section, the third minimum condition for flexing, namely the 'profit viability', will be addressed. In so doing, the major politico-economic drivers and implications of turning oil palm's multiple uses into commodities, as a pre-condition for flexing, will be discussed. In short, we present here a preliminary examination of *why* oil palm is flexed, *who* gets to decide *how* it is flexed, *when*, and *where*.

Why flex oil palm?

This section proposes three core, deeply interconnected drivers of oil palm flexing. The first is that of the accumulation imperative, the second is related to the green economy paradigm, and the third is regarding the move toward a multi-polar global food and agro-commodities regime.

The first possible driver of oil palm flexing is one that can be connected to the latter two: the current world politico-economic conjuncture in which oil palm has been transformed from an agricultural crop into an appealing accumulation project. This is related to two intertwined dynamics: The first connects to crises of over-accumulation, as Harvey argues, 'Capitalism always requires a fund of assets outside of itself if it is to confront and circumvent pressures of over-accumulation. If those assets, such as empty land or new raw material sources, do not lie to hand, then capitalism must somehow produce them' (2003: 143). Like oil palm, flex crops and commodities have become perfect outlets for surplus capital that is in search of new and/or safer investment frontiers.

The other element to this driver is related to Bernstein's review of the classic agrarian question in times of globalization, where he affirms that 'the range of non-agrarian, non-indigenous [local/national] sources of agrarian capital is likely to *expand* and *diversify*, and their *significance to increase*, over the history of capitalism' (2006: 10, emphasis added). The emergent flex crop and commodity complexes, especially regarding oil palm, are being targeted by increasingly financialized (agro)industrial and energy corporations, and by diverse investment funds, following broader trends of financialization in the world economy (Fine 2012). It is possible that this is occurring because flex crops also act as a flex-investment: they represent commodities which allow those investors who are in control of their different uses to selectively benefit from the value of its various commodities (such as biodiesel, detergent, or pharmaceuticals) based on which is more profitable at a given moment. As argued by Borras et al., 'financial capital may be particularly attracted to flex crops because their multi-functionality helps to negate the purported trade-off between risk and yield on investments' (2014: 7). In short, as a result of the financialized investment influx, the boundaries of the flex crop and commodity complexes are pushed towards new thresholds.

The second driver, the green economy paradigm, can be connected to the first. Again observed by Harvey, nature and the environment are becoming a new target for capital accumulation in the face of the increasing global environmental crisis: 'the escalating depletion of the global environmental commons (land, air, water) and proliferating habit degradations that preclude anything but capital-intensive modes of agricultural production have likewise resulted from the wholesale commodification of nature in all its forms' (2003: 148). In this sense, 'an entire philosophy of nature co-produced with a new 'green' economy' (Fairhead et al. 2012: 245) has been advanced, along with the belief that, 'growth in income and employment are driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services' (UNEP 2011: 16).

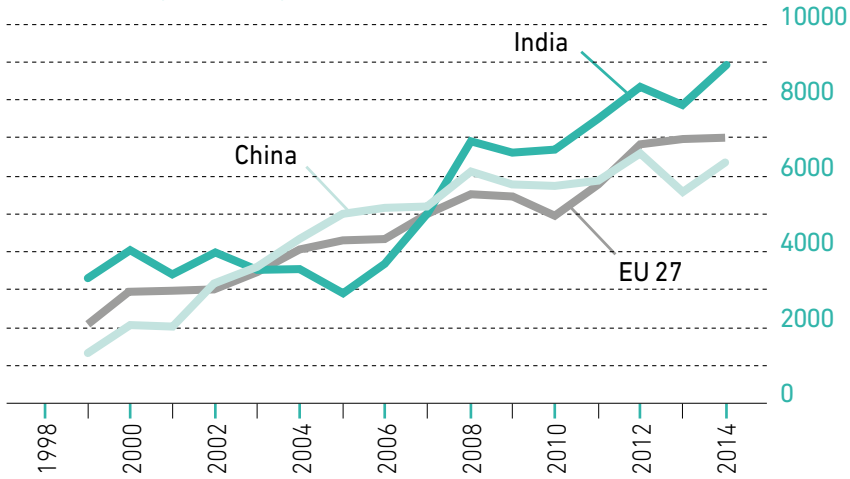
For instance, linking the green economy back to the most recent biofuel boom since the mid-2000s (Nalepa and Bauer 2012), palm oil is increasingly used as biofuel feedstock: "from zero in 2000 to about 10% of crude palm oil in 2011" (Sayer et al. 2012: 115). Within this biofuel boom, the new multiple uses of oil palm's biomass become profitable and are highly promoted in search of 'extra flexibilities from mainly non-food biomass in global value chains' (Borras et al. 2014: 2).

Thus, the uses of palm oil and oil palm's biomass shape and are shaped by the green economy paradigm, which in essence pushes for the flexing of oil palm as an economically desirable and environmentally sound business.

Finally, we see oil palm flexing as embedded within the current changes towards a multi-polar global food and commodities regime, in which the BRICS and MICs play an increasingly relevant role (see McMichael 2012, White et al. 2012, and Margulis et al. 2013). This argument has various elements: one relates to the value of certain commodities in the current phase of capitalism, and another connects to the growing relevance of emerging powers in the global political economy. The first element, briefly discussed above, is regarding the possible key features making oil palm an increasingly valuable crop today. The second element has to do with BRICS and MICs becoming not only major producers and consumers of the multiple products of oil palm, but also increasingly becoming mega-hubs of palm trade. A good example of a new key player in the world political economy of oil palm is China. As depicted in Figure 6 (below), China and India have taken the lead in palm oil importation since the last decade. As the world's largest importer of palm oil in recent years, India captures nearly 20% of the world's exports, while, as of the 2013-14 fiscal year, China has held a portion of nearly 13%.

The high demand for palm oil in China is expected to continue in the long run, though there are still many uncertainties and possibilities for fluctuation in the market. For instance, lower prices for soybean and rapeseed oil in late 2013 put pressure on palm oil consumption and import growth in China, while the 2007-08 global food price surge created a great demand for palm oil. However, the reasons for this cannot be completely reduced to market price elasticity. Demand for palm oil in China remains strong mainly because it is cheaper in relation to soybean and rapeseed oils. Blending palm oil with other vegetable oils for cooking is popular in China, and it is also commonly used in industrially processed foods like instant noodles, snacks, and biscuits. As shown in Table 1 (below), about 37% of China's domestic consumption of palm oil in 2013 was of non-food industrial products like cosmetics, paints, candles, and household cleaners – increasing from 17% in 2000. The palm oil that is imported to China has yet to be used for biodiesel directly, however, statistics and tax records collected by the customs department indicate that there are imports of palm oil linked to biodiesel from Southeast Asian countries.[10] Therefore, if the feedstock of imported biodiesel is taken into consideration, real palm oil consumption in China is even greater than the speculated amount.

Figure 6 Palm oil imports by China, India and EU-27. 1999-2014 (1000 MT)



Source: http://apps.fas.usda.gov/psdonline/psdReport.aspx?hidReportRetrievalName=Table+11%3a+Palm+Oil%3a+World+Supply+and+Distribution&hidReportRetrievalID=710&hidReportRetrievalTemplateID=8 calculated from the imports by India and China and the total world exports.

Table 1 Food, industrial and total palm oil consumption in China, years 2000, 2005, 2010 and 2013, in absolute and relative terms

Year	Food use (1000 MT/% over total)	Industrial use (1000 MT/% over total)	Total domestic consumption (1000 MT)
2000	1688/ 83%	340/ 17%	2028
2005	3074/ 62%	1900/ 38%	4974
2010	3717/ 64%	2080/ 36%	5797
2013	3600/ 63%	2150 / 37%	5750

Source: USDA, PRC Biofuel Annual 2013, retrieved on October 16 2014.

In the following section, we build on this general framing of the drivers of oil plam flexing by highlighting the actors involved in shaping the flexing, their rationales, aims, and how they relate to one another.

How does oil palm flexing work, and who controls it?

Oil palm flexing can be either 'real' (actually occurring) or 'speculated' (when it is not yet occurring but is likely to occur) (Borras et al. 2014: 8).[11] Bearing this in mind, this section presents some preliminary ideas about how *real* speculated oil palm flexing actually is, paying particular attention to *when* and *where* it actually happens.

There are two possible and mutually recursive realms involved in the flexing of a crop or a commodity, namely the material and the ideational. For a crop or commodity to be flexed, it is necessary for it to meet the three minimum conditions of material basis, technological feasibility and profit viability, as elaborated by Borras et al. (2014). These *material* conditions are, nonetheless, usually strengthened or realized through legitimating discourses. These discourses include those categorized by Borras et al. as 'flex policy narratives by governments and corporations' (2014)[12] in defence and/or promotion of the flex crops and commodities complexes. The narratives are rarely presented in an isolated way. Most often they are deployed in a 'discursive flexibility' fashion, that is, through 'the ability to strategically switch among multiple legitimating discourses which construe the necessary meanings and representations to achieve an objective' (Hunsberger and Alonso-Fradejas 2015).

To understand the workings of real or speculated oil palm flexing through a critical political economy lens, it is necessary to dive deeper into *who* informs, decides, and controls the nature of flexing. This is done below with an analysis of different roles played by state, corporate (private) and social actors in the flexing of oil palm.

State actors

State actors are key players influencing the character and scope of oil palm flexing. They are usually responsible for setting the necessary material and ideational conditions for flexing, or at least to kick-start it. In so doing, they rely on a series of mechanisms ranging from different sorts of regulatory tool-boxes and legitimating discourses, to funding and/or subsidizing research, technology and infrastructural requirements for flexing to happen in lucrative ways. An in-depth examination of such mechanisms deserves further empirical investigation, which goes beyond the possibilities of this paper. Nonetheless, here we aim to illustrate the role played by different state actors in setting fundamental conditions for oil palm flexing. For explanatory reasons, an analytical distinction is made between two main sets of actions by state actors, regardless of the particular mechanism used. The first set involves actions to develop and strengthen the abilities of the oil palm industry to profitably flex. The second set includes actions seeking to legitimate oil palm's multiple uses, and the flexing among them, in society.[13]

First, state actors promote the flexing abilities of state, private or public-private oil palm-related industries. Among the many initiatives of its kind around the world, the case of Colombia's 2008 National Biofuel Policy is an example of how the government can facilitate appropriate conditions for flexing among the multiple uses of palm oil in domestic markets. From the enactment of the biofuel policy onwards, demand of palm oil for biodiesel in Colombia increased from 5% in 2008 to 42% in 2012, offering the possibility for corporate actors to flex among food, biodiesel and other non-food uses of palm oil.

The case of Malaysia's 'National Biomass Strategy 2020', which included the establishment of an international 'Oil Palm Biomass Center' (OPBC), illustrates the role of different state actors in setting up conditions for flexing among the multiple uses of oil palm's biomass. The OPBC in Malaysia is not only the first of its class in the world, but also a major example of public-public, private-private and public-private partnerships in the context of current changes towards a multi-polar world food and agri-commodities regime. The Malaysian OPBC included many parties from the private sector[14] and the academy.[15] Furthermore, according to a Malaysian government representative,

> Many plantation players that have abundant sources of oil palm biomass are afraid to take up such a high risk [of turning the biomass into commodities] given the lack of research and proven cases for them to benchmark upon. [Thus] the OPBC 'future' technology and intellectual property findings could pave the way for potential joint ventures between the local oil palm plantation companies and international biochemical companies.[16]

Besides, international regulatory instruments and bi-lateral, regional and multilateral agreements (on investment, trade, (technical) cooperation, intellectual property, and so on) all shape the domestic environment for oil palm flexing. For instance, the 2013 'EU-Central America Association Agreement' formalized the previously unilateral favourable market access conditions for Central American palm oil to the EU. However, it was *crude* palm oil exports from Honduras[17] and Guatemala[18], and not of any further transformed commodity, that increased. On the contrary, China's adhesion to the World Trade Organization (WTO) from 2006 onwards finished with the quota system for palm oil imports, leading to their increase and to the broadening of the possibilities for flexing among the multiple uses of palm oil.

But national regulatory and institutional frameworks can also impact the international dynamics of oil palm flexing. For example, the strict requirements in the EU and the US regarding indirect land use change and its impact on the calculations of greenhouse gas emissions reduction, have curtailed the international biofuel market for major palm oil producers in Southeast Asia and Latin America. Recently, this has led these countries to develop domestic blending mandates (2008 in Colombia, 2009 in Malaysia (Loh and Choo 2013: 6) and 2014 in Indonesia).

Another important example is related to energy and food security policy in China. The 12th five-year plan of the 'National Energy Administration' (NEA) on Biomass Energy, states that China will develop non-food grain supplies for liquid biofuels and establish a production and demonstration basis for non-grain liquid biofuels. The unstable supply of domestic feedstocks (used cooking oil) was hindering large-scale biodiesel production in China, so in 2013, a tax-free biodiesel shipment from Indonesia and Malaysia was allowed under the trade agreements with the Association of Southeast Asian Nations (ASEAN). Importers were mostly private companies. Complaints from the big state palm oil refiners quickly resulted in a consumption tax on imported biodiesel from the beginning of 2014. The imports for biodiesel fell after the taxing of blended fuel, but still remain at relatively high levels. Thus, the Chinese state manages its tariffs and trading policies around crude palm oil and palm oil biodiesel to secure the domestic demand on vegetable oil and biofuels. In the context of the current 'Going Out' approach to investment, this energy policy, together with the food security policy, has led the Chinese government to encourage public and private companies to invest in oil palm plantations in Indonesia and Malaysia, and to support them in increasing their control on the oil palm value web from production to transformation, circulation, and consumption.

Secondly, and in relation to the first set of state actions, is the legitimation of oil palm's multiple uses and of the flexing among them. In short, state actors on their own or together with corporate and social actors, actively work to broaden societal perceptions of oil palm's multiple uses from being simply a new set of accumulation projects, to being the main contributors to food and energy security, climate change mitigation, and (rural) development (Hunsberger and Alonso-Fradejas forthcoming). Take Colombia's 2008 National Biofuel Policy as an example, previously mentioned and framed as a means to achieving national energy security and rural employment goals.[19] Another example is the Malaysian Oil Palm Biomass Center, which the government claimed would contribute to the creation of 'economic value and to reduce Green House Gas emissions'.[20] Accordingly, the 'zero emissions' and 'waste-to-wealth' messages of the oil palm biomass bio-refineries are instrumental to this broader understanding of flex crops and commodities. In the same line, the Chinese government legitimates its international investments in and around the oil palm value web as a means to achieving national energy and food security. These national framings are amplified and supported by similar discourses held by international governance institutions, like the World Bank in the case of food security (2007), and UNEP with regards to the green economy paradigm (2011).

Further analysis is required into the relationship of state actors' actions toward oil palm flexing, especially members of the BRICS and MICs, together with the role of supra-national regulatory and financial institutions, overseas development cooperation agencies, and the interactions between them all.

Corporate actors

Corporate actors are situated strategically across the oil palm value web, each involved in one, some or all of the elements of flexing among its multiple uses. For instance, there are many important Malaysian and Indonesian oil palm companies involved in the production, processing, and trading of oil palm and crude palm

oil. However, they are not all involved in further processing of palm oil or oil palm's biomass, and therefore, in flexing. This leads to the question: given the high cost of bio-refineries, who among the corporate players is most likely/or best prepared to actually flex among the multiple uses brought about by these new technologies? In other words, who in the long run will control oil palm flexing throughout its complex and expanding value web?

As a preliminary discussion, here we emphasize the highly financialized, transnational corporate actors repositioning themselves globally to capture a higher amount of control in activities within the oil palm value web. Often, transnational corporate players do this in alliance with corporate actors from oil palm producing countries. They do so as part of their own corporate strategy and/or in response to governmental regulations, such as in Malaysia where 'the Government is strongly encouraging local plantation companies to undertake joint ventures or become stakeholders in the new downstream activities [around oil palm's biomass], rather than simply becoming a supplier to the downstream operators'.[21] The strategies of Unilever, Cargill, Yihai Kerry-Wilmar International, and Julong Group in China are illustrative examples of this.

Unilever is an Anglo-Dutch manufacturer that is 'the world's largest multinational consumer goods buyer of palm oil' (Unilever 2013b: 13). In fact, Unilever 'purchases around 1.5 million tons of palm oil and its derivatives annually, which represents about 3% of the world's total production' (Unilever 2013a). In other words, Unilever is heavily involved in the oil palm value web, but whether they are involved in the flexing is yet to be seen. Why have they decided (if they have at all) to engage in flexing the commodity, and how would this help in the company's expansion? In our view, Unilever's ability to flex is certainly present, so how and to what extent they will use their position as a major buyer of oil palm-derived commodities to feed their industrial production, requires further analysis.

Cargill is the largest privately owned company in the US and one of the biggest agricultural traders in the world. Cargill is deeply involved in the palm oil value web from production, to transformation, and circulation, until it is traded to the product manufacturers, the food service industry and the wholesalers. Cargill can decide when to flex what, based on their vertical integration into palm oil production. They can either sell it, after its initial processing, as biofuel, or as fat or edible oil. They are major players in the oil palm value web, beginning with the plantations owned by Cargill's oil palm subsidiary, CTP Holdings; which has land holdings in Indonesia and Malaysia.[22] On these plantations they also engage in crushing in their own mills. At this stage they also buy from other suppliers in both countries. Cargill owns transport and shipping subsidiaries, which move the commodities from the production site to refining and blending plants. Before palm oil is refined, traders and brokers work with its derivatives and sell it to various customers. After refining, it is shipped to the ingredient manufactures where it is then processed further. Palm oil might also be sent to product manufacturers before it makes its way to the retailers (i.e. Walmart), the food service industry (i.e. McDonalds), and to the consumers' basket. As depicted in Figure 7 below, Cargill has crushing mills on site where their production takes place, while their other processing plants are located in the US, Mexico, Europe, India, and Malaysia, which shows the company's widespread geographical involvement in the oil palm value web (Cargill 2013).

Cargill's main trading vehicles are located in Singapore along with their financial agencies, which are fundamental to 'raising funds for investments in new holdings and infrastructure, and in facilitating key mergers and acquisitions between companies' (ZSL Indonesia 2012). In short, it can be said that Cargill is flexing among the many intermediate and final uses of palm oil commodities through its various physical uses and its financial derivatives. The involvement is deepened based on access to information regarding crop shortages and surpluses which helps set the price of commodities. This in turn would inform decisions regarding what form the commodity should be sold in. At this time, it is difficult to discern when the commodity is used for each function, however, it is clear that flex commodities can be used interchangeably by companies via subsidiaries and the channels within which the commodity moves. One question requiring further research is whether Cargill is involved, or potentially interested in being involved, in exploring the flexing possibilities of oil palm biomass.

Yihai Kerry, a subsidiary of the Indonesian capital-controlled *Wilmar International*, has been operating in China since the late 1980s when it formed a partnership with COFCO, a state corporation, within the Chinese Government's 'bring in' approach to foreign direct investment. After a series of very complicated joint ventures, mergers and acquisitions with COFCO, KUOK

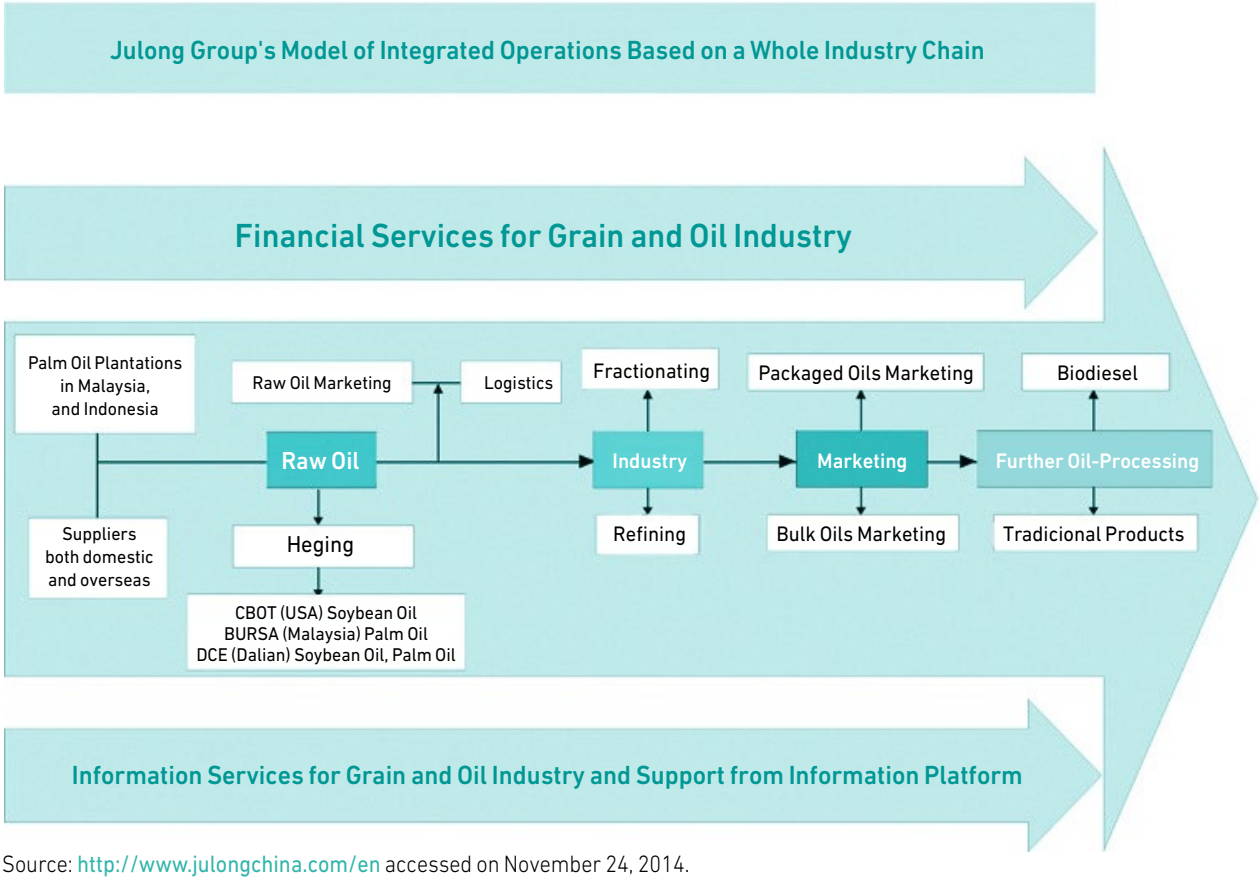
Figure 7 Cargill's refining and crushing plants worldwide

Source: Cargill 2010

Group, ADM, and others, Yihai Kerry now penetrates multiple market segments in China. The company is especially focused on oilseed crushing, edible oils refining, consumer pack oils, specialty fats and oleo-chemicals manufacturing, with over 170 large-scale integrated manufacturing plants located in 43 strategic locations in China, as well as an extensive nationwide sales and distribution network. As a subsidiary of Wilmar international, Yihai Kerry holds priority in raw material sourcing from Malaysia and Indonesia. Therefore, a fully integrated palm oil value chain is controlled by Yihai Kerry and Wilmar International, which allows them to minimize the costs of production, handling and logistics, and creates flexibility for them to adjust the portfolio of end-products according to signals from the Chinese market. Although there are some clues indicating that Yihai Kerry also invests in biodiesel production, further research is needed due to there being no official data or statement to trace actual business dealings. Indeed, it would be interesting to inquire into the extent that Yihai Kerry flexes among the multiple uses of palm oil, whether Yihai Kerry is actually or potentially interested in exploring the flexing possibilities of oil palm biomass, and more broadly, to understand why Wilmar International decided to expand into China and this might impact their flexing capabilities.

Also within the Chinese Government's 'going out' approach, *Julong Group,* with the highest palm oil market share in China, began its overseas oil palm production with the establishment of plantations in Indonesia and Malaysia in 2006[23], followed by a crushing plant in 2011. Julong Group is also involved in flexing palm oil after it is imported into China. As depicted in Figure 12 a few pages below, palm oil is used as either a commodity hedging in the futures market[24], or sold directly to other companies as an industrial input. After refining and fractioning occurs, palm oil is often destined for the cooking oil retail and wholesale markets, as well as the biodiesel market after it is processed further. In this context, there is a need to explore whether and to what extent the Julong Group is interested in flexing oil palm's biomass. Julong Group's vertical and horizontal integration in the oil palm's value web increased its flexing abilities by developing uses for the commodity that do not necessarily comply with 'China's food security principles'. It is difficult to trace all the possible uses of palm oil once it has been imported into China, but it can be speculated that it is the large, private transnational corporations, rather than the state, that are in control of the palm oil flexing processes in China. Considering that most other 'food' imports, such as soybeans, are under control of the state or state-owned companies, it is worth questioning why this is not the case for palm oil, and what is the actual role played by the Chinese state. Furthermore, why is it that Julong Group's plantations are in Indonesia and Malaysia, and not in China?

Figure 8 Industrial Chain of Julong Group China



Source: http://www.julongchina.com/en accessed on November 24, 2014.

Questions remain as to how strategies for doing business differ among TNCs from North-Atlantic countries and those from the BRICS and MICs, and in what ways are they similar? The simplest answer to the latter is that they have a common aim to capture a greater share of the oil palm value web by increasing, both vertically and horizontally, their abilities to flex among its multiple uses. In doing so, besides demanding further institutional, regulatory and discursive support from the state, corporate actors are developing their own regulatory systems in order to present themselves as socially and ecologically responsible businesses. Notably, and very much in line with the current developments of multiple uses for palm oil and oil palm's biomass, many corporate actors are members of two main global corporate social responsibility (CSR) initiatives within the oil palm value web – namely the Roundtable on Sustainable Palm oil (RSPO) and the Roundtable on Sustainable Biomaterials (RSB). Corporate actors often collaborate with civil society organizations to enhance and spread these private regulatory systems. The following discussion proposes some ideas about the particular role played by these social actors in the flexing of oil palm.

Social Actors

At the risk of oversimplifying the rich and dynamic mosaic of political rationalities coming from various social actors in response to the current dynamics of oil palm flexing, this paper intends to: 1) prioritize organized social actors and, as a reflection of the transnational character of the oil palm value web, pay special attention to *transnational* activist and lobby groups, 'rooted in specific national contexts, but who engage in contentious political activities that involve them in transnational networks of contacts and conflicts' (Tarrow 2005: 29); 2) focus, therefore, on the transnational character of contention, understood as 'conflicts that link transnational activists to one another, to states, and to international institutions' (Tarrow 2005: 25) and; 3) discuss how major currents within those transnational politics impact on the political economy of oil palm flexing.

Acknowledging there is a whole set of social actors working in more or less direct forms as campaigners and lobbyists for the oil palm complex, we turn our attention here to two main currents of critical transnational activism according to their more-or-less reformist or counter-hegemonic political standpoint; namely those

working to mitigate the negative socio-ecological impacts of the oil palm complex, and those leading oppositional struggles against it.[25] On the one hand, then, there are transnational organizations and advocacy coalitions who either do not see oil palm expansion as inherently problematic, or think that since it is 'unstoppable'; it is better to bargain for better deals for the people and/or the environment. These organizations and coalitions engage with corporate actors and to a lesser extent with state actors. In doing so, they often draw on 'an old discourse of corporate social responsibility (hereafter CSR) [which] construes the corporation as a moral agent; like individuals, the enterprise is understood to have a social conscience (DeWinter 2001)' (in O'Laughlin 2008: 947).

Arguably, social actors within this 'middle-ground' positioning aim at making corporations more socially and ecologically *responsible*, and they try to do so in two major ways. One way is by 'urging companies through analysis, outreach and participation in multi-stakeholder initiatives [...] to adopt and improve CSR instruments such as ethical principles, codes of conduct, disclosure, social audits and certification' (Utting 2008: 966). This is the case of (big international) development and conservation NGOs (BINGOs) operating at the core of the Roundtable for Sustainable Palm Oil (RSPO) and the Roundtable for Sustainable Biomaterials (RSB[26]). Stakeholders at RSPO include these BINGOs, as well as banks, investors, consumer goods manufacturers, oil palm growers, processors, traders, and retailers.[27] The RSB includes some technical government agencies[28], and a few inter-governmental organizations such as UNEP, UNCTAD and IFPRI[29]. In both the RSPO and the RSB, the BINGOs play a significant role as 'sustainability gatekeepers' (Alonso-Fradejas 2015). That is, they negotiate with corporations over the social and ecological standards ('principles & criteria') that the latter should be willing to impose on themselves. The concerned company hires a so-called independent certification body (usually a BINGO, a university or a consultancy firm) to assess its performance against the particular set of agreed principles and criteria it must comply with in order to be granted the 'sustainability seal'.[30] In spite of their private and voluntary nature, these certification schemes are becoming a *sine qua non* condition for oil palm growers and manufacturers to access some important markets and customers. For example, RSPO certification is required to qualify as a supplier of palm oil to the powerful transnational companies (mostly from the Global North, but not from BRIC and MICs) involved in the production, circulation and retailing of consumer goods, including Unilever and Cargill, which committed to buying only RSPO-Certified palm oil from 2015 onwards.[31]

Another method that is being used to try to make corporations in the oil palm value web more responsible is to apply 'rankings and ratings, where organizations assess company policy and performance' (Utting 2008: 966). An illustrative example is that of Oxfam International's (OI) 'Behind the Brands' Campaign. OI developed a Scorecard to 'assess the agricultural sourcing policies of the world's 10 largest food and beverage companies'[32], which are large buyers of palm oil and potentially also of the new products made from oil palm's biomass. The scorecard covers seven issues: 1) transparency, 2) female farmworkers and small-scale producers, 3) workers on farms, 4) farmers (small-scale) growing the commodities, 5) land, 6) water, and 7) climate. All but the transparency issue are assessed through indicators grouped into four categories: 1) awareness, 2) knowledge, 3) commitments, and 4) supply chain management.[33] As of January 2015, OI had published seven scorecards, the first in February 2013 and the latest in October 2014. They have gathered more than seven hundred thousand online signatures and provoked a series of compliance responses from several of the targeted companies.[34] One of the key campaign messages to the public reads:

> You're more powerful than any of the Big Ten food companies. Without you, they won't stay big for long. Use Facebook and Twitter to nudge your favourite brands. Contact the CEO personally and tell them what needs to change. We'll be constantly updating the scorecard so you can see the impact you're having.[35]

In sum, and as argued by Bridget O'Laughlin, in trying to make corporations responsible, regulation becomes 'principally a privatized domain with civil society groups directly negotiating with and monitoring corporations' (2008: 948). O'Laughlin goes on to argue that:

> The fact that a corporation claims that a particular activity has been undertaken as a reflection of its ethical concerns is no guarantee that it is contributing either to the general public good or to the well-being of the poor. Similarly, there is no assurance that civil society organizations and development agencies that presume to

> promote corporate social responsibility actually do so, nor that the actions they demand really benefit the poor and the oppressed (2008: 948).

That said, it is worth acknowledging that some of these advocacy and campaigning efforts have been able to bring about positive changes in the business practices of corporate players. Nonetheless, in contributing to the framing of oil palm as a responsible crop, these transnational social organizations, networks and coalitions may further legitimate the multiple uses of oil palm, the flexing among them, and therefore the continued expansion of oil palm plantations. As O'Laughlin questions, 'how can corporate initiatives be both profitable and consistent with the interests of the poor?' (O'Laughlin 2008: 945).

On the other hand, there are also transnational social actors opposing the workings of the oil palm complex because they consider them competing and inherently incompatible with the transformative project they strive for. These organizations, and their networks, coalitions and movements, often engage more with state actors and to a lesser extent with corporations. If, and when they do engage with the private sector, they often seek to make corporations 'accountable' in ways in which 'social contestation, critical research and campaigns pushing for legal reforms have assumed a higher profile' (Utting 2008: 966). This is the case of transnational organizations and movements of counter-hegemonic character, struggling for a transformative project from agrarian, environmental, food, gender and/or labour justice perspectives (among others). Their advocacy and campaigning efforts around the oil palm value web are often focused on the issues of land grabbing; climate change and environmental degradation; women's, indigenous peoples', peasants', fisherfolks' and pastoralists' rights; and to a lesser extent, labour conditions and rights. Some of these campaigns have been relatively successful in their goals as well. For example, they have been important in the case of the various regulations across Latin America on land ownership by foreigners, and on the amount of land one person or company can own. They are also working on making the 2012 FAO-CFS' 'Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security' an instrument of international governance which could potentially enhance rural working peoples' abilities to access, use and control land and other natural resources. Arguably, and also partly due to such advocacy and campaigning efforts in the EU, The European Commission stated that 'the assessment of how to minimise indirect land-use change emissions made clear that first generation biofuels have a limited role in decarbonising the transport sector [and thus] food-based biofuels should not receive public support after 2020' (European Commission 2014: 6-7).[36]

However, the claims and critiques of these oppositional campaigns have often been delegitimized by state, corporate and other competing social actors through their strategic use of flex policy narratives. For instance, there have generally been two main narratives countering agrarian justice-style campaigning against land grabbing by oil palm companies. First, is by reframing hunger and the need to feed an increasing world population as a problem of food availability, rather than one of access and distribution.[37] From this Malthusian perspective, oil palm is then presented as the best possible answer since it produces 'more oil on less land', when compared to other major commercial oilseeds (Hunsberger and Alonso-Fradejas forthcoming). The second narrative elaborates on a narrow understanding of contemporary land grabbing, which denies the phenomenon when people on the ground are not physically dispossessed from their land, such as in the case of oil palm contract-farming (World Bank 2007). Another example is the agrarian, food and/or environmental justice movements 'land for food, not for fuel' style of campaigning against oil palm. These types of claims are usually confronted by narratives emphasizing oil palm as a food crop – such as in the case of the 'Guatemalan Oil Palm Growers Guild' (GREPALMA) – arguing that they are the main contributors to 'food sovereignty' (Hunsberger and Alonso-Fradejas 2015).

In sum both of these broad types of critical advocacy and campaigning efforts have had some success in dealing with particular issues associated with expanding oil palm plantations, or with some of its multiple uses (e.g. biodiesel). What, then, does oil palm flexing imply for the efforts to make corporate actors in the oil palm value web either responsible or accountable? A fresh strand of theoretical and empirical research is needed; in which comparative studies developed at multiple scales and places could be a good contribution. With the intention of supporting and encouraging such research efforts, the next section proposes some issues for further discussion.

IMPLICATIONS OF OIL PALM FLEXING FOR TRANSNATIONAL POLITICAL ADVOCACY AND CAMPAIGNING

Critical political advocacy and campaigning efforts around oil palm are becoming increasingly more complex. This is partially due to the various (new) multiple uses associated with oil and biomass, the increased abilities to flex among the uses in profitable ways, and the new and increasing number of actors and their interrelations regarding oil palm flexing.

Transnational actors advocating and lobbying for the oil palm complex have developed effective responses to efforts from both critical currents (the reformist and the transformative) to make the oil palm complex responsible and accountable. Among these responses there are three particularly meaningful and relatively successful ones: 1) the co-optation of 'insiders' within multi-stakeholder initiatives like RSPO and RSB in the terms discussed above; 2) the wrapping of accumulation projects within a 'scientificity aura' (Hunsberger and Alonso-Fradejas forthcoming). For example, as discussed earlier, the public-private partnership around the international 'Oil Palm Biomass Center' (OPBC) in Malaysia, which included leading Malaysian and Dutch universities. Another relevant initiative is that of the 'Socially and Environmentally Sustainable Oil palm Research (SEnSOR)' project. In this project, the universities of York, Leeds, Swansea, Lancaster and Wageningen came together 'to improve the existing scientific evidence base of the Roundtable on Sustainable Palm Oil, to ensure that the principles and criteria of this initiative are effective' (team member from Wageningen University).[38] And finally, 3) corporate actors' appropriation of concerns regarding sustainability and responsibility originally raised by transnational social actors in multi-stakeholder initiatives and ranking campaigns. As Utting explains:

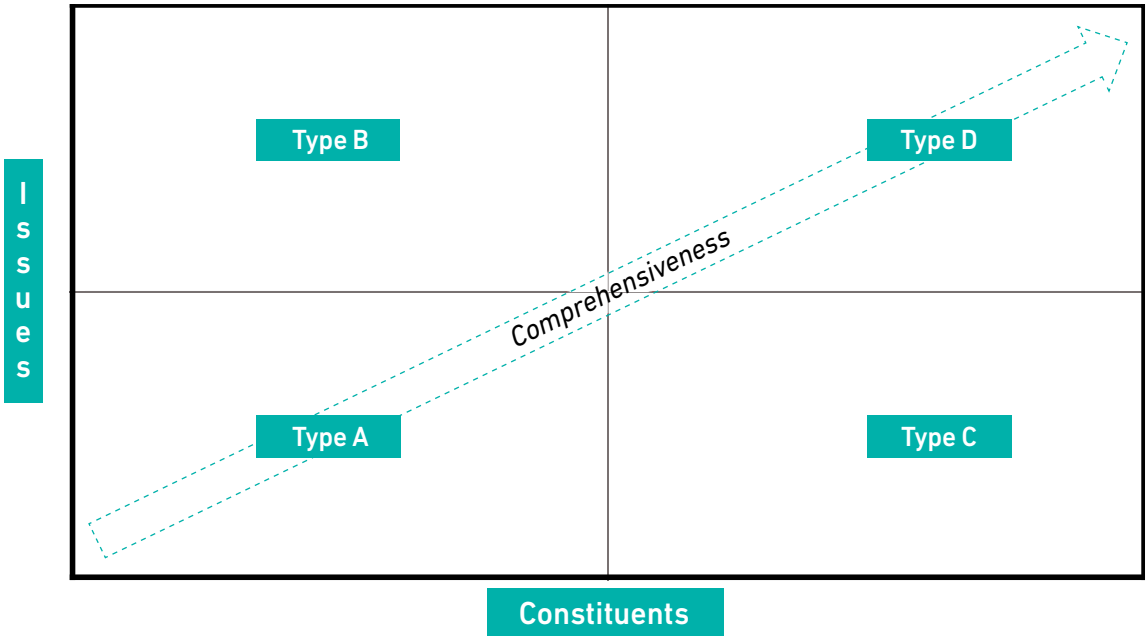
> Corporate elites excelled in a hegemonic strategy where they did not simply placate the opposition through co-optation but exercised moral, intellectual and cultural leadership, taking onboard certain concerns of the opposition. [In this way] big business interests were able to frame the CSR agenda in such a way that crucial issues related to global injustice remained largely off-limits (2008: 966).

Furthermore, it is not surprising that corporate actors in the oil palm value web, particularly those in the consumer goods and retailing businesses, have gotten involved in 'pro-social branding'. According to the CEO of a marketing firm writing for the Guardian, '*pro-social brands* are more politically disruptive and inspiring than *basic sustainable brands*. Instead of focusing on what a brand has done internally to drive a better world, pro-social brands look outward to take a stand on key moral issues'.[39] We have not yet identified any major transnational corporation within the oil palm value web overtly embracing pro-social branding. However, during a meeting in The Netherlands in October 2014, a representative from the large Dutch, animal-feed TNC, Nutreco (supported by those from Unilever and AHOLD)[40] called for the RSPO voluntary principles and criteria to be turned into biding statutory law, which could point in the direction of pro-social branding.[41] If pro-social branding becomes mainstream, even counter-hegemonic social actors might feel directly challenged in the way they frame their struggles for transformative projects.

Alongside – or perhaps as a result of – the need to further understand the major political responses and strategies of transnational actors pushing for the oil palm complex, we are confronted with many challenging questions around critical transnational advocacy and campaigning efforts, including: What is it that they should engage with? How could struggles be framed in order to simplify the complexities around the value web of oil palm (and other flex crops)? Who/what should be the target of critical campaigning? What would be the most appropriate means, forms and strategies of contention? An underlining question connected to each of these is: how can cohesion be better facilitated between critical transnational advocacy and campaigning efforts, which focus on multiple socio-ecological issues regarding the functioning of the oil palm value web, and impact diverse communities across the globe in different ways?

One way to start engaging with this question is through a typology – which is currently a work-in-progress – of four broadly distinct 'ideal-types' of diverse critical advocacy and campaigning streams focusing on the oil palm value web according to their comprehensiveness. These typologies are depicted in Figure 9 and discussed below.

Figure 9 Types of advocacy and campaigning efforts around oil palm as a flex crop according to their comprehensiveness



Source: Authors' elaboration

Type A involves advocacy and campaigning that is the least comprehensive of the four types, and is characterized by single-issue campaigns involving a very limited set of concerned constituents. For example, campaigns focusing solely on the ecological impacts of oil palm tend only to address the impacts of oil palm farming on biodiversity within protected areas, which are of interest to a particular group of conservationists. Another example includes campaigns against land grabbing when it is singularly understood as the physical dispossession of people from the land, and therefore mainly concern local landowners and/or tenant farmers. These campaigns are often overly-focused on the 'foreignization' of projects, sometimes even with support of social actors from the investors' home country, however rail bar campaigns are difficult to transnationalize. Thus, in spite of dealing with relevant issues, Type A campaigns are likely to have little impact on the oil palm value web overall, let alone on the flexing of oil palm.

Type B refers to advocacy and campaigning efforts that are more comprehensive than those of Type A, in that they elaborate on 'multi-issue frames' (Smith 2004 in Tarrow 2005: 73). Using the previous examples, the biodiversity conservation campaign would be reframed to include a broader range of concomitant issues, such as land grabbing and climate change. And the anti-land grabbing campaign, understood now from the perspective of changing 'land control' (Borras et al. 2012), could be reframed to deal with issues like food security and indigenous peoples' rights. Even though Type B campaigning can potentially reach out to more constituencies it is still constrained by localized impacts and, as such, is difficult to transnationalize as well.

Type C involves campaigns that have the virtue of reaching out to a larger number of constituents even in multiple countries. A good example is the transnational campaign against biofuels led by social organizations from Southeast Asia and Europe during the second half of the 2000s. This campaign elaborated on agrarian, indigenous peoples' rights, and environmental justice grievances under the umbrella of biofuels, and involved a wide range of social groups and organizations from Indonesia and Europe (Pye 2010). Oil palm was appropriately depicted as a socially and environmentally harmful crop by its challengers, and the campaign was relatively successful in catalyzing some regulative restrictions about land use changes associated with oil palm production in Indonesia, and biofuel feedstock imports and use in Europe. In this sense, this transnational anti-biofuels campaign had a relatively higher impact on the global oil palm value web than other rail bar or funnel types of campaigns. However, the main issue at stake remained that of the use of palm oil for biodiesel. Therefore, while being

relatively successful, the abilities and possibilities of corporate actors to flex among the different uses of oil palm still remain unchallenged in Type C campaigning.

The last category of campaigning efforts, *Type D*, is the most comprehensive of all, since these are aimed at combining multi-issue framing with transnational 'multi-constituent coalitions'.[42] This type of campaign is framed as a multi-issue campaign in a way that includes the different matters related to the multiple uses of oil palm and to oil palm farming. At the same time, it addresses the interests and grievances of many of the negatively impacted constituents in and around the oil palm value web from different regions. This of course is easier said than done, and thus far we could not find any campaigns of this sort in the context of the oil palm complex. Still, and for the sake of discussion, it might be useful to consider the possibility of developing Type D initiatives in the future, and for now using the idea of 'multi-frame transnational multi-constituent coalitions' as a potentially useful, if ambitious, means to assess concrete advocacy and campaigning efforts.

To be sure, a comprehensive campaign is not necessarily a successful one. As discussed earlier, there are Type A and Type B campaigns which have been very successful, albeit relatively limited, in their goals. Therefore, when thinking about the impact of critical advocacy and campaigning on the oil palm value web it is helpful to carefully reflect also on who is to be challenged (targeted actors), and which are the campaigns' allies. With regard to who is to be challenged, it is important not to miss out on the relevance of the state and of state actors. As O' Laughlin argues, 'suspicion of the state has led to an underestimation of the importance of what it does' (2008: 950). There is also a need to go beyond the single-issue framing while avoiding falling into a new sort of 'commodity fetishism'. Meaning, it is not about oil palm per se, or the multiple commodities and uses associated with it. Rather, it is primarily about changing social relations of production, industrialization, and circulation of oil palm and derived commodities, and the differentiated impacts on different social groups across agro-ecological settings.

Regarding campaigning allies, we have already stressed the need to build multi-constituent coalitions for the sake of comprehensiveness. However, the way campaigns are framed attracts some groups and deters others. Framing necessarily includes and excludes constituencies and shapes the environment for alliance building. Take for example social groups like contract farmers (especially small-scale ones) and plantation and industrial labourers, whose claims navigate both the counter-hegemonic and the reformist standpoints. These groups can be struggling for better 'terms of incorporation'[43] (DuToit 2004) into the oil palm value web or for a complete withdrawal of the oil palm complex operations. Alliance building across these actors and between them and others (peasants, family farmers, food buyers, environmentalists) are challenging, to say the least, but also very relevant to incorporate (Borras and Franco 2010). At the same time, campaigns are not exclusive to the nature of the organizations involved; for example, peasant organizations can also raise concerns about labour conditions or environmental depletion (as demonstrated in Pye 2010). The vision of food sovereignty is also an interesting frame worth exploring, because of its comprehensive nature and intersectional character.

CONCLUSIONS

In this paper, we have argued that the dynamics of oil palm flexing – why it is flexed, how, by whom and where – are closely related to world historical, political and economic conditions and, more specifically, to the current convergence of multiple global crises. The flexibility of oil palm is emerging alongside the crop's material, technological and profitability bases. Among these, the first is satisfied through the natural character of oil palm, while the following two bases are connected to the current accumulation imperative, the green economy paradigm and the changes in the global food and agro-commodities regime. While the international politico-economic conjuncture plays a key role in why a flex-commodity is more valuable at certain times, the extent of its value and the processes that ascribe this value are also impacted by regional differences and local complexities. Further research is needed to understand how these multiple layers converge and shape the commodity's flexibility and the paths it takes in the value web.

We have also discussed that the 'how' and 'why' of oil palm flexing is heavily influenced by a synthesis of forces and relations within and around the oil palm value web. These dynamics impact the way flexing

among oil palm's different uses is influenced and/or carried out by various powerful actors within the state, the private sector, and civil society. In order to better address the question of whether and how the flexing of oil palm occurs within its value web, the relations and interactions of producers, traders, consumers, policy makers and civil society actors requires a deeper analysis. In engaging with this discussion, the questions of who benefits from the flexing of oil palm, how they benefit, and at what costs, can also be approached.

Another important area of analysis is the 'hidden' nature of oil palm flexing. We are left with the question of: why does oil palm flexibility remain so convoluted, and what are the roles of certain actors in maintaining this obscurity? For example, when looking at the ingredients on packages of products containing palm oil, dozens of aliases are printed rather than simply 'palm oil'. If one picks up a beauty product, the long list of ingredients only says 'glycerine', a deviation of palm oil. Why is this? And how does this contribute to the perplexing manner in which palm oil is flexed? Consumers without specific knowledge of palm oil and how it is fractionated cannot always tell when they have purchased a palm oil-based product. What does this tell us about flex commodities? And to bring it an even broader level of analysis, what does it tell us about the current biotechnological, industrial agricultural complex?

All these questions may provide fresh empirical data on the possible impacts on different actors connected to the oil palm value web. One question that requires further attention is whether, to what extent and in what ways, the strengthened flexibility of oil palm may shape trajectories of agrarian change. That is, how does increasing demand for oil palm's multiple products drive oil palm acreage expansion? How would the further expansion of oil palm change land (and water) use, access and control relations at the production sites? What implications could there be on peasants, small-scale outgrowers, rural workers, and on the environment? And even further, how can any concerned actor address the possible implications of, for example, palm oil flexing, if we cannot even trace the way it is flexed due to the obscurity of the commodity's value web? This connects to a question posed by Borras et al.: 'How does one regulate palm oil, which has multiple and flexible uses? Should it be a concern for the food, fuel or industrial sector?' (2014: 4). On top of this, how can negatively impacted social groups address the actors and stages involved in the flexing of oil palm, considering its entangled value web?

This brings us to our final point regarding the implications for critical political advocacy and campaigning. Clearly, with the growing interest from financialized capital in oil palm's multiple uses, and the expensive bio-refineries coming into play, it is likely that the highly concentrated global value web of oil palm will become even more concentrated. Corporations have increasingly more leverage within this web and, as the story often goes, this may lead to further co-option and appropriation of state actors and large NGOs within the narrative of economic development, responsibility, and sustainability – and potentially also within the social branding discourse. If this does take place, how will the social actors leading oppositional struggles to the oil palm complex respond to these alliances in a sophisticated manner that addresses the multiple issues and relations defining the politics of oil palm flexing? Again, there is no simple answer to this. However, comprehensive Type D advocacy and campaigning efforts may provide a solution by joining a multi-issue framework with transnational multi-constituent coalitions struggling against the impacts and the rational of oil palm flexing, as well as for a transformative project like food sovereignty.

References

Alonso-Fradejas, A. (2015) 'Anything but a story foretold: Multiple politics of resistance to the agrarian extractivist project in Guatemala', *Journal of Peasant Studies*, 42(3-4): 489-515

Bernstein, H. (2006) 'From Transition to Globalization: Agrarian Questions of Capital and Labour', International Conference on Land, Poverty, Social Justice and Development, 9 to 14 January 2006, Institute of Social Studies pp.1-22.

Borras, S. M., Franco, J. C., Isakson, R., Levidow, L., & Vervest, P. (2014). Towards understanding the politics of flex crops and commodities: implications for research and policy advocacy. Amsterdam: Transnational Institute (TNI) Agrarian Justice Program.

Borras Jr, S., & Franco, J. (2010). From Threat to Opportunity – Problems with the Idea of a Code of Conduct for Land-Grabbing. Yale Hum. Rts. & Dev. LJ, 13, 507.

Borras, S.M. & J.C. Franco (2013) 'Global Land Grabbing and Political Reactions 'From Below', *Third World Quarterly*, 34(9), 1723-1747.

Borras S., J.C. Franco, & C. Wang (2013) 'The Challenge of Global Governance of Land Grabbing: Changing International Agricultural Context and Competing Political Views and Strategies", *Globalizations Journal*, 10(1), 161-179.

Cargill (2011, June 3). Cargill begins offering certified sustainable palm oil to North American food manufacturers. Retrieved from Cargill Corporate Website: http://www.cargill.com/news/releases/ 2011/NA3046201.jsp (June 5, 2014).

Cargill (April 10, 2013). Cargill's journey on palm oil. 1-18. Cincinnati, OH.

Corley, R. Hereward V., and P. B. H. Tinker (2003). *The oil palm*. Oxford: Blackwell.

European Commission (2014). A policy framework for climate and energy in the period from 2020 to 2030, COM (2014) 15, Brussels.

Fairhead, J., Leach, M., & Scoones, I. (2012). Green Grabbing: a new appropriation of nature? *Journal of Peasant Studies*, 39(2), 237-261.

Fine, B. (2012). 'La Financiarisation En Perspective', Actuel Marx 51: 73-85.

Fox, J. (1993). *The politics of food in Mexico: State power and social mobilization*. Ithaca: Cornell University Press.

Goodman, D., B. Sorj, and J. Wilkinson (1987). *From Farming to Biotechnology. A theory of Agro-industrial Development*. Oxford and New York: Basil Blackwell.

Harvey, D. (2003). The new imperialism. Oxford University Press.

Hassan M& Shirai Y (2013). Palm Biorefinery for Sustainable Bioenergy, Biofuels and Biomaterials. Retrieved from: http://www.biomass-asia-workshop.jp/biomassws/10workshop/download-file_10th_biomass-asia-workshop/6_AUG_13/10.%20Prof.Dr.Mohd%20Ali%20Hassan,%20UPM,%20NEF%20Session.pdf.

Hunsberger, C., and Alonso-Fradejas, A. (f2015). 'The discursive flexibility of 'flex crops': comparing oil palm and jatropha', *Journal of Peasant Studies*.

Loh, S. K., & Choo, Y. M. (2013). Prospect, Challenges and Opportunities on Biofuels in Malaysia. In Advances in Biofuels (pp. 3-14). Springer US.

Margulis, M. E., McKeon, N., & Borras Jr, S. M. (2013). Land grabbing and global governance: critical perspectives. *Globalizations*, 10(1), 1-23.

McMichael, P. (2012). The land grab and corporate food. *The Journal of Peasant Studies*, 39 (3-4), 681-701.

Nalepa, R. A., & Bauer, D. M. (2012). Marginal lands: the role of remote sensing in constructing landscapes for agrofuel development. *Journal of Peasant Studies*, 39(2), 403-422.

O'Laughlin, B. (2008). Governing capital? Corporate social responsibility and the limits of regulation. *Development and Change*, 39(6), 945-957.

Pye, O. (2010). The biofuel connection–transnational activism and the palm oil boom. *The Journal of Peasant Studies*, 37(4), 851-874.

Sachs, J. (2015). '2015 will be the year brands take a public stand on social issues'. Retrieved from The Guardian: http://www.theguardian.com/sustainable-business/2015/jan/02/2015-social-justice-race-equality-rights-climate-business-marketing (January 4, 2015).

Sayer, J., Ghazoul, J., Nelson, P., & Klintuni Boedhihartono, A. (2012). Oil palm expansion transforms tropical landscapes and livelihoods. *Global Food Security*, 1(2), 114-119.SONNE, P. (2012). Unilever Takes Palm Oil in Hand. The Wall Street Journal. Asian Business News.

Tarrow, S.G. (2005). *The New Transnational Activism* (Second edn.). Cambridge: Cambridge University Press.

Tarrow, S.G. (1998). *Power in Movement: Social Movements and Contentious Politics* (Second edn.). Cambridge: Cambridge University Press.

UNEP (2011). Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication. Retrieved from: www.unep.org/greeneconomy (November 19, 2014).

Unilever (2013a). Unilever accelerates market transformation for sustainable palm oil. Retrived from: http://www.theguardian.com/sustainable-business/unilever-market-transformation-sustainable-palm-oil (October 19 2014).

Unilever (2013b). Unilever sustainable living plan 2013. Retrieved from: http://www.unilever.com/images/ slp_Unilever-Sustainable-Living-Plan-2013_tcm13-388693.pdf (October 19 2014).

USDA (2006). Oilseeds: World Markets and Trade. Retrieved from: http://usda.mannlib.cornell.edu/usda/ fas/oilseed-trade/2000s/2006/oilseed-trade-12-01-2006.pdf.

USDA (2014). Oilseeds: World Markets and Trade. Retrieved from: http://apps.fas.usda.gov/psdonline/ circulars/oilseeds.pdf.

Utting, P. (2008). The struggle for corporate accountability. *Development and Change*, 39(6), 959-975.

White, B., S.M. Borras Jr., R. Hall, I. Scoones and W. Wolford (2012). 'The New Enclosures: Critical Perspectives on Corporate Land Deals', *The Journal of Peasant Studies* 39(3-4): 619-647.

Wilmar (2013). Wilmar international limited Annual Report 2013.

World Bank (2007). *World Development Report 2008: Agriculture for Development*. Washington DC: The World Bank.

ZSL Indonesia (2012). Sustainable Palm Oil Platform. Retrieved from: http://www.sustainablepalmoil.org/investors-traders/traders/ (January 8, 2014).

Endnotes

1 In First Latin American Conference of Oil Palm Growers, Guatemala, October 17 2013

2 See Corley and Tinker 2003 for an in-depth historicization of the development of the oil palm complex.

3 http://usda.mannlib.cornell.edu/usda/fas/oilseed-trade//2000s/2006/oilseed-trade-12-01-2006.pdf

4 http://apps.fas.usda.gov/psdonline/circulars/oilseeds.pdf

5 Including empty fruit husks, palm fronds, trunks, palm kernel shells and mesocarp fibers) (see Pogaku and Sarbatly 2013)

6 In http://www.biomass-asia-workshop.jp/biomassws/10workshop/download-file_10th_biomass-asia-workshop/6_AUG_13/10.%20Prof.Dr.Mohd%20Ali%20Hassan,%20UPM,%20NEF%20Session.pdf

7 In http://www.biomass-asia-workshop.jp/biomassws/10workshop/download-file_10th_biomass-asia-workshop/6_AUG_13/10.%20Prof.Dr.Mohd%20Ali%20Hassan,%20UPM,%20NEF%20Session.pdf

8 Such as C5 and C6 sugar molecules in oil palm biomass [...] to construct medium and long chain (higher) hydrocarbon chain chemicals' (Loh and Choo 2013: 12).

9 In http://www.biomass-asia-workshop.jp/biomassws/10workshop/download-file_10th_biomass-asia-workshop/6_AUG_13/10.%20Prof.Dr.Mohd%20Ali%20Hassan,%20UPM,%20NEF%20Session.pdf

10 USDA, PRC Biofuel Annual 2013, http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Beijing_China%20-%20Peoples%20Republic%20of_9-9-2013.pdf accessed on January 24, 2014, GACC Announcement No.74, 2013 on Oil-Product Import Consumption Tax, http://www.mofcom.gov.cn/aarticle/b/g/201103/20110307429707.html accessed on May 9, 2014, Tax incentives boost Chinese biodiesel imports, replace diesel, www.reutersreprints.com accessed on October18 2013, and China's biodiesel imports fall in weeks after imposition of blended fuel tax http://www.platts.com/latest-news/agriculture/singapore/chinas-biodiesel-imports-fall-in-weeks-after-27855021, accessed on January 24, 2014.

11 They also consider 'imagined flexing' to mean 'flexing that is not real, not actually happening and has no material or logical basis, yet it is invoked for some reason' (Borras et al. 2014:9). We found no clear examples of this type of flexing in the case of oil palm but this, of course, remains an open empirical question.

12 Building on an earlier analysis by Franco et al. (2010) on biofuels.

13 On the dual and contradictory role of state actors in capitalism more broadly see Fox 1993.

14 Including 3 major palm oil companies (Sime Darby, IOI, Felda) with globally leading technology developers interested in biomass utilization like Purac (The Netherlands), Novozymes (Denmark), LG Chemical (Korea) and others (http://www.be-basic.org/news-center/news/oil-palm-biomass-center-industry-and-academia-join-forces-to-benefit-economy-and-climate.html)

15 Like the technical universities of Malaysia (UTM) and Delft (TU Delft-Netherlands), University Putra Malaysia (UPM), Standard and Industrial Research Institute Malaysia (SIRIM), Palm Oil Industry Cluster (POIC) Sabah, and Wageningen University (WUR-Netherlands) (ibid.)

16 http://biz.thestar.com.my/news/story.asp?file=/2012/3/21/business/10954510&sec=business

17 http://www.oficinascomerciales.es/icex/cda/controller/pageOfecomes/0,5310,5280449_5282957_5284940_4697703_HN,00.html accessed on December 16 2013

18 http://www.centralamericalink.com/es/Noticias/Guatemala_duplica_ventas_de_alimentos_a_Europa/ accessed on December 16 2013

19 Interview with the Biofuels Program Coordinator of the National Planning Department, Government of Colombia, in Bogota, July 2008.

20 http://www.tudelft.nl/en/current/latest-news/article/detail/oil-palm-biomass-center-opgericht-in-maleisie/

21 http://biz.thestar.com.my/news/story.asp?file=/2012/3/21/business/10954510&sec=business

22 Cargill's own volume from its plantations accounts for 3% of the total global flow (Cargill, 2013).

23 So far, Julong Group has developed oil palm plantations with a total area of 100,000 hectares, as well as reserve land with a total area of 100,000 hectares (partly in Indonesia and partly in Malaysia), and an additional area of 10 thousand hectares of oil palm is contracted with smallholders in the local communities (http://www.julongchina.com/company.asp?g=1 accessed on July 2014)

24 The Chinese General Office of the State Council, 2007[59] encouraged the establishment of a futures market for palm oil.

25 This framing builds on Borras, Franco and Wang's (2013) discussion on competing political responses to land-grabbing.

26 Originally born as the 'Roundtable on Sustainable Biofuels' it was renamed in 2013 to include all sorts of biofuels and biomaterials (http://rsb.org/ accessed on December 17 2014).

27 http://www.rspo.org/members/all accessed on December 17 2014

28 From Australia, The Netherlands, USA, U.K, Kenya and Switzerland

29 http://rsb.org/about/organization/member-list/ accessed on December 17 2014

30 This is an example of how 'NGOs involved in verifying compliance with CSR standards can become clients of the corporations they are supposed to be monitoring' (O'Laughlin 2008: 950).

31 Colombian FEDEPALMA´s President in XVII International Conference on Palm Oil in Colombia, September 26 2012.

32 Nestle, PepsiCo, Unilever, Mondelez, Coca-Cola, Mars, Danone, Associated British Foods (ABF), General Mills, and Kellogg's (http://www.behindthebrands.org/en/about accessed on January 10 2015).

33 http://www.behindthebrands.org/en/about accessed on January 10 2015.

34 In http://business-humanrights.org/en/natural-resources/allegations-of-abuse-company-responses-non-responses/company-responses-to-oxfams-campaign-behind-the-brands-food-justice-and-the-big-10-food-and-beverage (accessed on January 8 2015).

35 http://www.oxfam.org/en/campaigns/behind-brands accessed on January 8 2015

36 For a meaningful analysis of the transnational campaign against oil palm expansion and palm-oil based-biodiesel involving activists in Indonesia and the EU, see Pye (2010)

37 Oil palm industry representatives from Colombia, Ecuador and Guatemala, in I Latin American Conference of Oil Palm Growers, Guatemala, October 18 2013

38 https://www.wageningenur.nl/en/show/Filling-knowledge-gaps-for-sustainable-oil-palm-agriculture.htm

39 Sachs, J., January 2 2015, http://www.theguardian.com/sustainable-business/2015/jan/02/2015-social-justice-race-equality-rights-climate-business-marketing (accessed on January 4 2015, emphasis added)

40 Certification and beyond: solutions for responsible agro-commodity governance, organized by the 'Ecosystem Alliance' (IUCN Netherlands, Wetlands International and Both Ends).

41 Such a claim was made as a response to why, by September 2014, only 18% of the globally produced palm oil was RSPO-Certified (http://www.rspo.org/about/impacts). The Nutreco rep. answered that a main reason for this has to do with importers in China and India not caring about sustainability standards. Thus, the call to make 'hard law' of such standards could also be understood as a strategy of these Northern TNCs to out-compete powerful TNCs from the BRICS and MICs.

42 This concept is inspired by Oliver Pye's 'multi-frame coalitions' (2010: 871).

43 Varying from favorable to adverse terms and conditions of people's incorporation into an accumulation project (Du Toit 2004: 1003)

ACKNOWLEDGEMENTS

These contribution is the result of the international workshop: "Problematizing and researching 'flex crops & commodities': *Reframing issues, rethinking actions*". The workshop was co-organized by the Transnational Institute (TNI) and the Institute of Social Studies (ISS) on 23 January 2014, at the ISS, in The Hague. The authors are most grateful to TNI for funding such a workshop, to Jennifer Franco and Jun Borras for their meaningful comments on earlier versions, and to Elyse Mills for her helpful editorial support. Any remaining errors are our own.

SHORT NOTE ON THE AUTHORS

Alberto *Alonso-Fradejas* is a PhD Candidate at the International Institute of Social Studies (ISS) in The Netherlands, Research Associate of the Transnational Institute (TNI), and Fellow of the Guatemalan Institute of Agrarian and Rural Studies (IDEAR). Email: fradejas@iss.nl

Juan *Liu* is an Assistant Professor at College of Humanities and Social Development, Northwest A&F University, China, and Post-doctoral Researcher at The International Institute of Social Studies (ISS), The Hague. She holds a PhD in Development Studies. Her research interests include internal migration and social policies, rural politics, land politics, and political economy of agriculture, environment and food. Email: juanlcau@gmail.com

Tania *Salerno* is a PhD candidate in the Anthropology and Sociology Department, University of Amsterdam. She is part of the research programme, '(Trans)national Land Investments in Indonesia and the Philippines: Contested Control of Farm Land and Cash Crops', funded by NWO-WOTRO. Her research interests include agrarian development, land, financialized corporate agriculture and the global food system. Email: T.N.Salerno@uva.nl

Yunan *Xu* is a PhD Candidate at the International Institute of Social Studies (ISS) in The Netherlands, funded by the China Scholarship Council (CSC). Her research interests include industrial tree plantations, land, agrarian development, rural capitalism and food safety. Email: yunan@iss.nl

AGRARIAN JUSTICE PROGRAMME

In recent years, various actors, from big foreign and domestic corporate business and finance to governments, have initiated a large-scale worldwide enclosure of agricultural lands, mostly in the Global South but also elsewhere. This is done for large-scale industrial and industrial agriculture ventures and often packaged as large-scale investment for rural development. But rather than being investment that is going to benefit the majority of rural people, especially the poorest and most vulnerable, this process constitutes a new wave of land and water 'grabbing'. It is a global phenomenon whereby the access, use and right to land and other closely associated natural resources is being taken over - on a large-scale and/or by large-scale capital – resulting in a cascade of negative impacts on rural livelihoods and ecologies, human rights, and local food security.

In this context TNI aims to contribute to strengthening the campaigns by agrarian social movements in order to make them more effective in resisting land and water grabbing; and in developing and advancing alternatives such as land/food/water sovereignty and agro-ecological farming systems.

Agroecology by the Filipino painter ***Boy Dominguez****, 2013*

TNI Think Piece Series on Flex Crops & Commodities

The convergence of multiple crises (food, energy and fuel, climate and financial) in the midst of the rise of newer hubs of global capital (BRICS countries and some middle income countries) – and the various responses to these by states and corporations – have paved the way for the emergence of 'flex crops and commodities'. Flex crops and commodities are those that have multiple and/or flexible uses: food, animal feed, fuel, and other commercial-industrial uses. In fact the contemporary global land rush is intertwined with the rise of flex crops and commodities: sites of large-scale land deals tend to be sites of expansion of production of these crops and commodities, e.g. soya, sugarcane, palm oil, corn, cassava, industrial trees. What are the implications of this phenomenon for how scholars, civil society and grassroots social movements undertake 'engaged research', public actions and policy advocacy around agrarian justice issues? The issues are compelling and urgent, yet still largely under-researched. TNI is launching the TNI Think Piece Series on Flex Crops & Commodities to jump-start collaborative action and a critical dialogue between engaged academics, civil society and grassroots movement activists on this issue.

Layout: Ricardo Santos

Amsterdam, Transnational Institute (TNI)

T
N
I

Published by Transnational Institute

The **Transnational Institute** was founded in 1974. It is an international network of activist-scholars committed to critical analyses of the global problems of today and tomorrow. TNI seeks to provide intellectual support to those movements concerned to steer the world in a democratic, equitable and environmentally sustainable direction.

www.tni.org

For more information contact:
tni@tni.org

The expansion of oil palm production, consumption, and trade of its multiple commodities has become increasingly contentious in recent decades. This paper argues that this contentious expansionary trend may continue alongside the rise of 'flexing' among oil palm's burgeoning multiple uses, especially for more industrial and energy-related purposes. Oil palm has been extensively analysed in the context of land grabs and agrarian change, land conversion, and deforestation. However, its particularity as a flex-crop remains unexplored, especially with respect to the convergence of the global food, fuel and environmental crises. This paper provides a preliminary analysis of how oil palm fits into the flex crop framework by discussing the material basis, technological feasibility and profit viability, as well as the role different actors (state, corporate and social) play in shaping the political economy of oil palm flexing. Within a flex crop framework, challenging questions arise for critical transnational advocacy and campaigning efforts. In particular, this paper engages with ideas on how to better facilitate the cohesion of multiple social and ecological issues related to oil palm production within transnational movements, while also taking into account the diverse concerns raised by local communities globally.

Keywords: oil palm | flex crops and commodities | value web | BRICS | MICs | political advocacy