

Original citation:

Richardson, Ben, 1982-. (2015) Making a market for sustainability : the commodification of certified palm oil. *New Political Economy*, 20 (2). pp. 545-568.

Permanent WRAP url:

<http://wrap.warwick.ac.uk/72982>

Copyright and reuse:

The Warwick Research Archive Portal (WRAP) makes this work of researchers of the University of Warwick available open access under the following conditions. Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

Publisher statement:

"This is an Accepted Manuscript of an article published by Taylor & Francis Group in *New Political Economy* on 23/07/2014, available online:

<http://dx.doi.org/10.1080/13563467.2014.923829>

.A note on versions:

The version presented here may differ from the published version or, version of record, if you wish to cite this item you are advised to consult the publisher's version. Please see the 'permanent WRAP url' above for details on accessing the published version and note that access may require a subscription.

For more information, please contact the WRAP Team at: publications@warwick.ac.uk

Making a Market for Sustainability: The Commodification of Certified Palm Oil

Dr Ben Richardson, Department of Politics and International Studies, University of Warwick
b.j.richardson@warwick.ac.uk

Abstract

In the same way there are markets for carbon, there is now a market for sustainability. Ostensibly produced as a means of conserving land in South-East Asia, a commodity called 'certified sustainable palm oil' has been created by the Roundtable for Sustainable Palm Oil and exchanged on its own international trading platform completely independently of the flow of physical palm oil. In this way, sustainability has acquired a precise pecuniary value and can be bought by 'socially responsibly' companies to offset their use of conventional, and potentially environmentally-destructive, palm oil. This is yet another instance of the commodification of nature, but a curious one since it has emerged largely outside of governmental structures. What this case adds analytically to the literature on primary commodities is two-fold. First, whereas studies of commodity certification schemes characterise them as 'non-state, market-driven' forms of governance, this shows them to be actively market-making. Second, whereas studies of commodification dwell on the deepening of capitalist relations, this highlights the continued contestation of this process and its possibilities for democratising and even transcending market exchange.

Acknowledgements: Earlier version of this paper were presented at University Warwick workshops entitled 'Planetary Cancer' in March 2013 and 'International Law, Natural Resources, and Sustainable Development' in September 2013. The author is grateful for helpful comments received at these workshops, as well as to Alex Sutton and Matthew Watson for reading through draft versions.

Introduction

The paper's title is meant in a literal sense. Go onto the website of brand-name companies like Johnson & Johnson, Marks & Spencer, Unilever and Walmart and you will find how they are helping to protect the environment in South-East Asia. The region is the world's biggest producer of palm oil, a commodity linked to deforestation and the destruction of peatland, and in turn, catastrophic effects on biodiversity and global climate stability. To dissociate themselves from such processes, these companies have committed to use palm oil certified by the Roundtable for Sustainable Palm Oil (RSPO) in their products. However, closer reading reveals that these commitments are partially fulfilled by the purchase of certificates from an RSPO trading platform, which cover an equivalent amount of conventional palm oil that the companies continue to use. In effect, the claim of sustainable production has become a commodity itself, openly priced and traded on an international exchange. There is literally a market for sustainability.

The RSPO was formed in 2004 by a group of ten business and environmental organisations engaged in the palm oil industry, the most influential being Unilever, the Malaysian Palm Oil Association and the WWF. Its aim was to better govern the production of palm oil through the creation of a sustainability standard, drawn up by its members. Among other things, this required producers to avoid planting on ecologically-sensitive land, to reduce levels of pollution, and to consult with affected stakeholders in a participatory manner. By making sure that these principles were met on the ground through on-site checks by independent auditors, it was believed this would "help minimize the negative impact of palm oil cultivation on the environment and communities in palm oil-producing regions" (RSPO 2013a).

Since the first certified palm oil was shipped in 2008, the RSPO has attracted much criticism. Scholars and activists have argued that it (a) excludes smallholders, (b) does not appeal to buyers in the biggest consumer countries, China and India, where there is less public pressure to source 'sustainable' raw materials, and (c) cannot convince producers with the worst environmental records to sign up, since it is ultimately just a voluntary scheme (McCarthy 2012; World Rainforest Movement 2010).

Proponents of the RSPO contend that certificate trading mitigates these concerns. It has made the scheme more inclusive since it allows smallholders to realise the financial reward of being certified directly without having to rely on the central palm oil mill.¹ Likewise, palm oil mills exporting to China or India are able to sell their certificates directly to buyers in the Global North, thus giving them an incentive to sign up to the RSPO regardless of the final destination of their oil. Finally, certificate trading allows buyers to ‘use’ sustainable palm oil without undertaking the costly job of sourcing and tracing RSPO-certified material throughout the whole of their supply-chains, thus increasing the scheme’s demand pull.² Taken together, it is claimed that the RSPO will be able to widen its coverage and move more quickly to the status of *de facto* industry standard. And it is at this point that producers, including even the worst environmental offenders, will have little choice *but* to become certified if they want to remain in business (see GreenPalm 2009; RSPO 2013b; WWF 2013). The extent to which a market for sustainability truly expedites this state of ‘non-negotiable voluntarism’ will be interrogated in the paper.

The marketisation of sustainability – or more precisely, RSPO’s account of it – also poses some questions for the political economy literature on the primary commodity trade. The tension of trying to work through the market to change social relations and conditions of production in the sectors of food, forestry and fishing has been noted by many (see Cashore 2002; Raynolds 2000; Ponte 2012). Underlying this tension has been the relationship between “meaningful commodities and commodified meanings” in which attempts to articulate alternative forms of production and exchange are caught within the webs of the capitalist system such that they become hard to disentangle from corporate marketing tools and industry market niches (Guthman 2002). In the case of palm oil certificates, when the commodified meaning is *itself* brought to market, this relationship becomes even more complex. As such, this paper also teases out the implications of certificate trading for this form of “non-state, market-driven” governance (Cashore 2002) and, more broadly, for theorising the political economy of capitalism in relation to dynamics of environmental change (Smith 2007).

To bring the literatures on commodity trade and commodification into conversation, as well as extend the study of nature within the pages of *New Political Economy* (see Prudham and Heynen 2011), the paper begins by tracing the lineage of the Marxist literature on ‘neoliberal ecologies’. After foregrounding theoretically how the RSPO was able to establish a market based on a tradable claim to sustainability, the following two sections offer some critical reflections. It is argued that the market for sustainability reveals something of the politics of the RSPO, namely, that it is built primarily *on* the backs of producers and *behind* the backs of consumers. It also transforms the way a traditional certification scheme operates by disintermediating the relationship between producers and end-users, whilst also creating possibilities for financialisation. A final section then considers the dynamics between the exchange-value and use-value of these certificates and makes the case that both the marketisation of sustainability and its very commodification remain contested.

Commodification, Conservation and Neoliberal Ecologies

According to Marx, a commodity is something produced by human labour which has a ‘use-value’ for others. So although things like “air, virgin soil [and] natural meadows” have a social use, because they were not manufactured by man, it would be a fiction to describe them as a commodity (Marx [1867] 1995: 17). He also defined a commodity as something meant for exchange, although it did not necessarily have to be sold via a market but could be bartered or collectively redistributed instead. Nevertheless, Marx recognised that the commodity-form and the realisation of its exchange-value through the market was being generalized to such an extent that social inequality had become readily accepted as the natural result of the different prices fetched by products that people happened to labour on. This was dubbed the ‘commodity fetish’ and worked to conceal the way things were produced and the social relations this engendered.

Marx’s method of articulating the market and the commodities traded therein left a deep impression on Polanyi and his more explicit treatment of the capitalisation of nature (2001 [1944]). In particular it was the dialogue between the formal and moral ‘voices’ of Marx which animated his concept of ‘fictitious commodification’. Where the formal voice of Marx was echoed in Polanyi’s abstract claim that the economy of nineteenth century England had been forcefully disembedded from society, the moral voice found expression in his insistence on the indivisibility of the economically useful and non-useful parts of natural life (Watson forthcoming). Applied to non-human nature, Polanyi’s formal

Marxism led him to reveal how rental markets in land had not arisen organically but were created through government legislation and actively managed via the watchful eye of local administrators. In annexing the countryside to the new industrial factories, the apparatus of the state had to be extended twice over. His moral Marxism led him to refute the allure of rapid improvement. Subjecting land to the price mechanism robbed rural dwellers of “self-respect and standards” and nature of its “protective covering of cultural institutions”, such that “leaving the fate of soil and people to the market would be tantamount to annihilating them” (Polanyi 2001: 76). The commodification of land thus destroyed the traditional basis of extra-human well-being and initiated a struggle between those social forces seeking to *maximise* its exchange-value and those seeking to *maintain* its use-value.

The reason why capitalism was considered inimical to stewardship and sustainability was later theorised in Marxian terms as a result of under-production (O'Connor 1988). The capitalisation of nature – as fields became grazing land, forests became wood plantations, and shorelines became tourist beaches – produced “discrete bits of biophysical stuff” like wool, timber, and proximity to bathing waters to be circulated as commodities (Prudham 2009). However, the conditions of production on which this activity depended were at the same time degraded by capital, or ‘under-produced’, with the resultant contradiction periodically taking the form of economic crisis. For example, setting up multi-story hotels along a seafront front brings congestion and pollution, which spoils the beach itself. As the air becomes smoggy and the sand and water dirty, the hotels find it harder to attract visitors (to say nothing of the effects on residents and wildlife) and crisis in the tourist industry ensues.

One answer to the problem of under-production emerged out of the neoclassical economics literature on externalities. This said that individual firms *would* carry the cost of environmental degradation if they were made financially responsible for it through private transactions backed up by tort law (Coase 1960). Counter to Polanyi’s caution, this called for *more* commodification so that, for example, beaches could be assigned owners who could then sue restaurants or pleasure boats for dumping pollutants in the local area, i.e. the ‘polluter pays’ principle. In addition, ownership could be used to privatise access to the beach and provide a revenue stream that could then be used to cultivate its desirable ecological and aesthetic qualities, i.e. the ‘steward earns’ principle.

The intellectual case for “selling nature to save it” (McAfee 1999) has since been mainstreamed into policy, the essence of which is nicely encapsulated in the work of a group of experts clustered around the UN Environmental Programme on ‘The Economics of Ecosystems and Biodiversity’. In their headline publication they make the case for:

Assessing and internalizing [economic] values wherever and whenever it is practical and appropriate to do so. A failure to do so is unacceptable: namely to permit the continued absence of value to seep further into human consciousness and behaviour, as an effective ‘zero’ price, thus continuing the distortions that drive false trade-offs and the self-destructiveness that has traditionally marked our relationship with nature (TEEB 2010: 12)

Assigning a monetary value to something in this manner doesn’t necessarily mean commodifying it too. Most obviously, governments might choose to alter taxes and subsidies after realising that a particular aspect of the environment has hitherto unnoticed benefits (cf. Pigou 1920). However, in the contemporary context of neoliberalism – with its ideological emphasis on private property rights, free trade and financialization – there has been a clear tendency for the former to precede the latter (Harvey 1996). A literature sited predominately in the geography discipline has identified many such cases: ecotourism, wetlands banking, avoided deforestation and carbon trading to name just a few (see respectively Duffy 2010; Robertson 2004; Stephan 2012; Lohmann 2010). The common thread in each case has been the pursuit of environmental ends by deepening capitalist relations and creating a scarcity of “allowable natural destruction” (Smith 2007: 20). Thus, conservation strategy has gone from protecting endangered species and setting aside nature reserves, to greening production and monetising ecology (Peluso 2012).

The commodification of nature of which these new strategies of market environmentalism have depended has involved more than just making objects exchangeable, since this quality on its own is consonant with non-market forms of trade such as reciprocity and redistribution. It also requires a reworking of Marx’s association of the commodity as repository of labour time, given the (partially) autonomous existence of environmental goods and services outside the labour process (Castree

2003). Systematizing contemporary Marxist writing on nature – and in so doing disaggregating the process of fictional commodification described by Polanyi – Castree thus offers a way of historicising the distinct *capitalist* commodification of nature. Applied to the emergence of palm oil sustainability certificates in the next section, these six linked process are:

- 1) Privatisation – the assignation of a legal title that gives rights to the owner to dispose of that thing which is titled as they wish;
- 2) Alienability – the capacity for something to be physically and morally separated from its legal owner;
- 3) Individuation – the representational and physical act of separating something from its supporting context;
- 4) Abstraction – the process whereby the qualitative specificity of any individuated thing is assimilated to the qualitative homogeneity of the class of things;
- 5) Valuation – the expression of value, specifically in money, which allows things in one class to be rendered commensurable with those in another;
- 6) Displacement – the phenomenal appearance of something as other than itself.

Three broad criticisms have been made of conservation through commodification (Büscher *et al.* 2012; see also Gómez-Baggethun and Pérez 2011). The first is that it stimulates and conceals contradictions. Since nature becomes valued only insofar as it commands a remunerative market price and earns rent for those ‘producing’ and selling it, ecological protection becomes predicated on accumulation and uneven economic growth. And since complex ecologies can never be fully subsumed into a set of discrete ‘ecosystem services’, the effects of resource-intensive growth models creep back in. In short, O’Connor’s under-production effects are only displaced. So for instance, commodifying a beach as part of an ecotourist strategy might help protect the shoreline from urban creep, but the carbon emitted as part of the tourist’s journey to that destination contributes to global warming and thus rebounds as rising sea levels. The ‘pristine’ beach is undeveloped and still under-threat.

The second critique relates to appropriation and misrepresentation. Opening aspects of nature to the circulation of capital frequently requires closing access to others; a process that Fairhead *et al.* (2007) call ‘green grabbing’ and which Harvey (2003) has generalised as ‘accumulation by dispossession’. Yet the violence of these ‘new enclosures’ has been readily erased by the shared discourse of ‘win-win’ outcomes for the planet and for profit, persuasively advanced by large commercial and charitable organisations using the commodity fetish to manufacture consent for their projects. Think of the adverts and testimonies used to promote lavish ecotourist resorts, which are only able to offer ‘wilderness’ to consumers because they have cleared and/or marginalised existing land users (Duffy 2010). This misrepresentation draws veils over both the social relations of production and the full functioning of nature – what Marx referred to as ‘the natural power of the soil’, akin to the autonomous power of labour – which are obscured by the expression of nature as an exchange-value.

The third and final critique relates to the disciplining of dissent. Where oppositional voices are raised to neoliberal conservation strategies, they have readily been written off or reincorporated as refinements. For instance, those concerned about the fossil fuel used in reaching ecotourist destinations are either dismissed as idealistic or directed toward individual offsets that can be purchased through the voluntary carbon market (now worth some \$500m per year!). Economic practices oriented towards common ownership, reciprocal distribution and animistic worldviews are particularly prone to ideological ‘purification’ in this manner (Büscher *et al.* 2012). In this sense, then, we can see how neoliberal conservation is as much a way of remaking the ‘social environment’ as it is the ‘natural environment’ (Castree 2007).

A Commodification and Marketisation of Sustainability

Drawing on the literature review above, this section seeks to theorise the transformation of sustainability from contested concept to tradable commodity. Using Castree’s sextet, it shows the stages by which a commodity called ‘certified sustainable palm oil’ was constructed, but drawing on the critiques mentioned subsequently, also foregrounds why this remains contested. The struggle between actors over the commodification process is especially important where the commodity in question is not yet established, as is the case for many ecological commodities. Witness, for example,

the near collapse of the UN's Clean Development Mechanism as its commodity, the 'certified emission reduction', lost political legitimacy and market credibility throughout the 2010s. As we show later on, it is the durability of the use-value of certified sustainable palm oil which is in question, and on which hinges this new multi-million dollar global market.

Privatisation

While many studies of 'neoliberal ecologies' have had to start with moments of appropriation – including the patenting of life forms and the privatisation of land, water and air – the RSPO case is somewhat different since the palm oil production it seeks to regulate has to a large extent already incorporated commodified land and labour. Going back to the colonial departments in South-East Asia, which enclosed land and expelled forest dwellers and taxed peasants in order to administer what would become raw material export zones, successive administrations in the region have helped establish legal title for the industry (Bryant and Parnwell 1996: 6). The exception is the frontier into which the palm oil industry is expanding, and with which the RSPO has a fraught relationship. Although its sustainability standard seeks to address the unlawful and 'uncooperative' acquisition of new land, critics point out that this has not stemmed the tide of government land concessions and their associated clearances that have ultimately come under oil palm cultivation. As will be discussed later, the politics of this prior commodification, or 'primitive accumulation' to use Marx's term, still threatens to undermine the commodification of palm oil sustainability. But for its part, the only privatisation that the RSPO has pursued has been for its trademark, which is now registered in all the major national palm oil markets (RSPO 2013c). Obtaining the right to legally challenge unauthorized use of trademarks is especially important for organisations in the certification business where, in effect, the label *is* the commodity being sold.

Alienability

Again, where alienability has been contentious in other instances of commodification, such as the detachment of carbon emissions reductions from fossil fuel burning (Lohman 2010), the practice of separating the claim of sustainability from the raw material itself has barely been commented upon in the certification literature. Arguably this stems from the established conventions of the certification business. Segregated supply-chains are only one method by which certified raw material is transported to the final customer. Another is called mass balance, in which certified and conventionally-produced material are mixed at points along the supply-chain and a set of industry-wide norms have emerged in order to provide credibility to this system. This includes clearly stating on the label where the final product is made from 'mixed source' materials, and checking the intermediary firms along the supply-chain to make sure they are not selling on more certified material than they actually received. Evoking the watchful eye of Polanyi's administrators, RSPO regulation on how to trace certified palm oil runs into hundreds of lines on its website. By extending this to certificate trading – only allowing manufacturers using palm oil certificates to claim that they 'support' sustainable palm oil production and not that their products actually 'contain' it, for instance – the RSPO have effectively parlayed the existing legitimacy for certification into tacit consent for certificate trading too.

Individuation

In the same way that wood pulp and sheep's wool can be considered 'discrete bits of biophysical stuff' separated from their supporting context, so too can sustainable palm oil. Of course, palm oil itself is an extraction and refinement of the 'impure' liquid crushed from the fruit of oil palm trees, and so is individuated at this basic level first. But it is the individuation of sustainability which is more interesting here. While the sustainability standard of the RSPO is designed precisely to re-contextualise palm oil so that it is not entirely divorced from its conditions of production, it is notable that decisions still have to be made about to what to permit, and what to prevent, within this standard. For example, while the conversion of 'old-growth' forests to palm oil plantations are *not* permitted, the conversion of 'secondary forests' and peatland *is*. Peatland drainage in South-East Asia is thought to release as much carbon dioxide into the atmosphere as 3 per cent of total global fossil fuel burnings, and as such, has been a controversial practice to accept within the sustainability standard (see Hooijer *et al.* 2010; Wetlands International 2013). Moreover, so that the standard can be operationalised in an objective manner, those socio-natural relations that are included have to be conceptualised in a highly technical and calculable way. So to determine whether a particular piece of land is a primary forest,

auditors have to assess its exposure to logging, its canopy cover, and its use by indigenous communities, each according to a prescribed set of definitions and timeframes that inevitably exclude alternative ways of seeing (Silva-Castañeda 2012). Palm oil production has thus been subject to a particular form of commensuration whereby qualities are reduced to quantities and on this basis a common metric constructed that allows the scheme to disentangle one nature from another and demarcate sustainable from unsustainable production.

Abstraction

As noted above, while every single palm oil production site has its own unique ecology – dependant on the type of land used, varieties grown, chemicals sprayed, etc. – once they have been audited against the universal RSPO standard, all these concrete differences are smoothed over. The site is either certified or not certified. This binary categorisation constitutes the abstraction process. All certified palm oil is now treated the same, whether it is sold from a conglomerate's plantation in Indonesia or a smallholder's farm in Thailand, creating an abstraction that is both functional (certification makes exactly the same contribution to sustainability...) and spatial (...regardless of where it occurs). There is a parallel with carbon trading here. Lohmann has argued (2010: 240) that because the cheapest options for generating emissions reductions, such as routine efficiency improvements, are treated the same as those which stem from investment in renewable technologies, then there is little incentive for the latter to materialise. This limits the ability of carbon markets to reorganise existing energy infrastructure and break the long-run reliance on fossil fuel. In the same way, since the RSPO makes no distinction about the quality or importance of sustainable production in particular places, it too is open to the criticism that it lacks the ability to prioritise. There are no incentives to try and engage those producers rapaciously pushing back the agricultural frontier compared with rubber-stamping those producers already demonstrating good management practices.³ To paraphrase Lohmann, it is not just how *much* certification happens that it is important but *who* this occurs to and *how*.

Valuation

It is in the process of valuation that certificate trading has had the biggest impact. In certification schemes prior to this, 'certified sustainability' would be *produced* as a commodity – i.e. auditors would labour on a service designed for sale – but it would not *sold* as a commodity in its own right. Rather, it was annexed to the physical raw material, so that manufacturing companies paid for both the good and the service together. The extra amount paid for the service, if any, would be negotiated in private between the two parties. By creating a trading platform for certificates, the RSPO has changed all this. The trading platform is called 'GreenPalm' and is owned by AarhusKarlshamn AB, a Scandinavian company dealing in vegetable oils and a founder member of RSPO. Producers log on to GreenPalm and register how many certificates they wish to sell and at what price. Buyers do likewise and then offers are matched with bids automatically by the platform's software. This makes the monetisation of certificates explicit, so that buyers and sellers (and the public) can see how much certificates are trading for. Not all trades are conducted like this. GreenPalm has retained a feature of the old system, so that producers and manufacturers can negotiate between themselves in an 'off market trade' (see Figure 1). Either way, a \$1 brokerage fee per certificate is charged by GreenPalm for arranging the trade and a \$1 fee levied by the RSPO.

Displacement

The final process, displacement, takes us back to the commodity fetishism. As noted earlier, certification schemes have a complicated position here since their attempt to promote social justice and ecological integrity is premised precisely on greater transparency of how things were produced. Yet, as Prudham has argued, they do not eliminate fetishism. Rather, they seek to "simultaneously rework both the material and semiotic aspects of commodities" by reducing the social relations and conditions of production into a representative label or 'stamp' upon that commodity (Prudham 2009: 135). Consumers still cannot see how that product was brought to market, although they may now trust that certain substantive outcomes were attained along the way. For the RSPO's certificate trading scheme, the fetishism of sustainable commodities is complicated further by the fact that the sustainability claim is detached from the physical commodity. To mitigate this paradox, the RSPO has taken steps to ensure that manufacturers buying certificates do not mislead consumers by implying that their products contain certified palm oil. All they are allowed to state is that their company

supports the production of such palm oil, although most only publicise such information off-product in their corporate communications.

INSERT FIGURE 1 HERE

In sum, through these six processes, the RSPO has managed to fictionally commodify sustainability. It is fictional since sustainability is not produced for sale; ecological integrity exists prior to productive labour and exchange relations. Nonetheless, it is treated as a commodity and 'RSPO-sustainability' has now acquired a precise exchange-value. In September 2008 this stood at \$50 for one certificate, equivalent to one tonne of certified palm oil, but by September 2013 that same certificate cost just \$3. Thus we have the strange situation where we can say that 'in five years, the price of sustainability fell 94 per cent'. Despite the falling exchange-value of certificates, more than two million tonnes of certified palm oil have been traded per year (GreenPalm 2012), making the sustainability market worth around \$4m and generating \$2m in fees for both the RSPO and AarhusKarlshamn AB.

The use-value of this new ecological commodity is a little harder to pin down. It is perhaps best expressed as a 'negative claim to corporate responsibility', meaning that buyers of RSPO certificates use them primarily to insulate themselves from criticism that they are actively contributing to environmental degradation. This makes them subtly different to other 'biodiversity offsets' like wetland certificates or pollution permits, which confer positive rights to companies to develop or pollute. Rather, they are more akin to what Žižek (2011) has called 'moral offsets', the kind of goodwill gesture that has become indispensable in the culturally-laden capitalist system in which brand-name companies now operate.

Commodification as Revelation: Sustainability 'On the Backs' of Producers and 'Behind the Backs' of Consumers

What difference has the market for sustainability made? The next two sections offer some reflections on this question; the first connected to the idea that certificate trading has changed the way we understand certification schemes by helping to reveal some of the political foundations on which this project rests.

To begin, pricing sustainability through certificate trading makes explicit that the RSPO approach is not about providing a 'true' valuation of tropical rainforest as environmental accountants might wish, but preventing what The Economics of Ecosystems and Biodiversity initiative referred to as "the continued absence of value". The disparity between the price of sustainability (\$3 a tonne in September 2013) and the price of palm oil (\$828 per tonne that same month) throws into relief just how little is spent on reproducing the conditions of production vis-à-vis production itself.⁴

The 'under-valuation' of nature also raises distributional issues. In contrast to the raft of regulation on traceability and labelling claims, there is no mechanism in the RSPO to ensure that producers get a fair price for changing their business practices in order to meet the sustainability standard, e.g. by minimising soil erosion, maintaining water quality, mitigating biodiversity loss, etc. The Indonesian Palm Oil Association has subsequently complained that: "It is expensive to get RSPO certified and the premium for certified sustainable palm oil is insufficient to cover the costs" (Chew 2010). Even in its own generous assessment, taking into account the savings that might follow on from implementing the RSPO's sustainability standard such as reduced pesticide use or accident rates, the WWF still had to ask:

Are there companies for whom RSPO does not provide a net benefit? This is a valid and challenging question, for which the answer surely is "Yes" (WWF 2012b: 44).

Part of the reason for this is that much of the palm oil that is certified is not even traded as such, but sold as conventional palm oil without the premium attached; an over-supply of certificates which keeps their exchange-value depressed. This evokes Marx's observation that the shift from bartering commodities to trading them for cash puts sellers at a disadvantage, since they only command a particular commodity while buyers command money, the universal equivalent. In this case, one of the underlying factors for the over-supply of certificates is that manufacturers and retailers confront this as just one commodity among many that can help insure them against reputational risk.⁵ The magnitude

of money that these companies control only heightens the sense of supply-chain inequity instituted in the RSPO. For example, a major corporation like Nestlé, which made over \$11bn profit in 2012 alone, could 'play its part' by certifying its entire palm oil usage for just \$1.3m per year.⁶

The use of certificate trading also helps us see more clearly the strategy of the WWF, the non-governmental organisation at the heart of palm oil certification and similar schemes in forestry (the Forest Stewardship Council), fisheries (the Marine Stewardship Council), sugarcane (Bonsucro), soy (the Roundtable on Responsible Soy), cotton (the Better Cotton Initiative) and other sectors. Although these schemes are commonly framed in terms of 'ethical consumption', it is an enduring myth that their primary aim is enrolment of the consumer as a political agent. The 'Market Transformation' team at the WWF is explicit on this point. In order to change the way that environmentally-harmful raw materials are currently produced, they have asked:

Do we try to change the habits of seven billion consumers? Work directly with 1.5 billion producers? Our research reveals a more practical solution...The linchpin of our strategy is to work with the biggest buyers of each commodity to shift their whole supply chain. If we can get enough of these companies to demand higher production standards, we can push commodity markets to a tipping point where sustainability becomes the norm (WWF 2012a: 2-3).

High volumes of certified trade appear to be the order of the day, over and above the substantive outcomes and political mobilisation of that certification process. In terms of certificate trading, while the WWF accept that it permits buyers to carry on using palm oil that comes from "unacceptable sources", and must surely also recognise that it attenuates awareness among high street shoppers about the problems of palm oil (since consumer labelling is largely absent from GreenPalm-certified products), they have continued to back the deepening commodification of sustainability (WWF 2013). They do so for reasons of expediency. Until certified palm oil reaches an industry tipping point, wherever and whenever that may be, the WWF argue that certificate trading is needed so that their chosen corporate targets have "simply no excuses...not to accelerate their sourcing of sustainable palm oil" (WWF 2011: 4).

Commodification as Transformation: The Disintermediation and Financialisation of Sustainability

My second set of reflections on certificate trading relate to its transformative effects on the project of palm oil certification. As illustrated in Figure 1, the most obvious aspect of this is its disintermediation of the RSPO's 'sustainable supply-chain'. Manufacturers and retailers are able to bypass the various intermediaries handling the claim to sustainability and can instead purchase this from the GreenPalm platform as a fraction of the cost and in a fraction of the time. Many activists have been critical of what they see as a general weakening of the scheme's integrity. According to Palm Oil Investigations of Australia:

Consumers are losing faith, the RSPO name is being used as nothing more than a marketing tool, no one knows if a brand is using certified palm oil or not, it's an absolute joke and a mess. RSPO needs to cease endorsing GreenPalm and cut ties if it's going to gain any kind of credibility for their certification process (see Palm Oil Consumer Action 2013).

Greenpeace has even likened this system to money laundering, explicitly drawing attention to the illegal activities on which some palm oil production depends and showing how, through certificate trading, this "dirty" palm oil can be presented as sustainable and thus legitimate.

If on the one hand producers are emboldened to 'launder' raw material, then on the other hand manufacturers and retailers are accused of using GreenPalm to greenwash their sourcing strategy, akin to Renard's (2003) notion of supermarkets 'image laundering' by selling limited lines of Fairtrade products. This is a criticism put forward by New Britain Palm Oil Limited, a producer which supports the idea of certifying palm oil but not of marketizing their trade. For them: "GreenPalm certificates are simply a cheap way for companies to claim support for sustainability while doing nothing different to what they have done in the past" (NBPOL 2011). The moral argument being put forward here is that disintermediation negates responsibility. Buyers are absolved of using the considerable leverage they

have over their own suppliers to change the way palm oil is produced. Conscious of this charge, some companies like Unilever have caveated their use of certificate trading, presenting it as a practical first step towards a fully-traceable, 100%-certified sourcing strategy. Indeed, Unilever has claimed that this goal was so important that it even invested \$69m in a palm kernel processing mill in Indonesia to bring part of its supply-chain 'in house' (Unilever 2013).

Another transformation introduced by disintermediation relates to accountability. Some of the most notable campaign successes in the palm oil industry have come from attacking brand-name companies because of their *direct* links with destructive producers. This includes the 2010 Greenpeace campaign against Unilever which resulted in the company cancelling contracts with the palm oil group Sinar Mas. However, the system of certificate trading offers buyers a way of side-stepping these attacks since they can claim that any unsustainable practices identified among their suppliers are 'offset' by the purchase of (anonymous, untraceable) sustainability certificates. Take the case of Kellogg's, which was criticised in July 2013 for its joint venture with Wilmar, a palm oil producer accused of degrading land in national parks and other protected areas in Indonesia. The cereal manufacturer defended itself by saying that, thanks to the RSPO certificates it had bought on the market, "all of the palm oil we use is 100% sustainably sourced" (Culliney 2013). In the same way that the tradability of land led to an increased rate of soil exhaustion, as capitalists did less to preserve the conditions of production knowing they could acquire fresh soil through the market (Marx 1981: Part 6), it seems that the tradability of sustainability allow buyers to dispense with oversight of their suppliers' degradation of nature. There are always fresh certificates to buy on GreenPalm.

A final consequence of disintermediation is redistribution. Here, a more positive case could be made for certificate trading, as Nestlé have outlined:

The purchase of GreenPalm certificates is currently the most cost effective way to support improved palm oil practices where most of the money is actually supporting tangible improvements in the plantations [rather than...] the physical segregation of different supply streams (BBC n.d.).

In a similar vein but from the supplier's point of view, the 'sustainable supply-chain' team at Wilmar have noted that:

Many times, [RSPO] premiums are only distributed to the commercial arms of companies and plantations, and mills and refineries are forgotten. The operations are the reason the commercial teams have a sustainable product to sell and they must be rewarded accordingly (Parulian and Beamish 2012).

Of course, Nestlé and Wilmar have their own reasons for defending certificate trading: for the former it is cheaper than having traceable sources, for the latter it allows them to realise more premiums from their certified output. But nonetheless, certificate trading does help shift the distribution of rents from RSPO certification, firstly, from intermediaries to producers (as well as GreenPalm), and secondly, to operational managers and smallholders within that sphere of production. However, it remains an open question as to whether the provision of additional rents to decision-makers 'on the ground', especially given the low price of certificates, will incentivise and enable them to mitigate their business' most egregious environmental impacts.

Thinking about the circulation of capital within the RSPO system points us to another transformation that has been opened up by certificate trading: financialisation. Understood here as the increasing penetration of interest-bearing capital across economic and social reproduction (Fine 2010) one form this could take is to mirror the pension and stock markets by prioritising pecuniary measurements over other forms of evaluation. So in the same way that accounting tools like 'earnings per share' have become more than just indicators of business performance, we might suppose that the price of certificates could too become the purpose of action and a means by which 'calculative agencies' come to account for themselves (Callon 1998). For instance, if there is widespread agreement that to be successful the RSPO must encourage greater industry coverage and that one of the incentives for this is to receive a higher premium, how long before the fluctuating GreenPalm price – shown in Figure 2 – becomes a locus of environmentalism in and of itself? News headlines like "Smaller Premiums to Slow 'Green' Palm Certification" give an indication of how exchange-value could come to

regulate social activity, tying the extensity of conservation efforts even more tightly to the rhythms of capitalism (Bhui 2009).

INSERT FIGURE 2 HERE

Another possibility is that managers of interest-bearing capital turn to the sustainability market as a new means of accumulation. Presently this is monopolised by AarhusKarlshamn AB and only RSPO-members manufacturing or retailing products can buy GreenPalm certificates. But there is no reason to suppose why others could not participate in this market too. Since business associations in Belgium, France, Germany and the Netherlands, as well as government departments in the UK, have all made pledges toward using certified palm oil, why not make purchases from the sustainability market a matter of national trade policy? Likewise, might individual consumers who feel guilty about their palm oil consumption not buy certificates themselves? This would require the introduction of financial intermediaries to act as brokers, who could also offer additional services such as derivatives for producers wanting to hedge against falling prices. Perhaps investors will even target sustainability certificates as an asset class in their own right, leading to a situation where fictitious capital resides in fictitious commodities – a speculative endeavour indeed!

If all this change to the *social* environment (cf. Castree 2007) seems rather fanciful, it is worth recalling the evolution of carbon markets, which in the short time since they were institutionalised have attracted a phalanx of auditors, brokers and traders, each taking a cut from the commodification of the atmosphere. In fact, at one seminar on the future of the EU carbon market, a climate officer of the WWF complained that “it was never the intention to create profits”. He was quickly reminded by a spokesperson from Barclays Capital that “it’s inevitable if you institute a trading system” (Lohmann 2010: 246). One wonders whether the WWF has anticipated this tragedy repeating itself as farce within the sustainability market.

To Challenge the Sustainability Market or the Commodity Itself?

One criticism of the neoliberal ecologies literature is that there is an excessive focus on the creation and novelty of neoliberal nature and not enough about the ‘how’ of recurrent commodification (Peluso 2012). Not wanting to reproduce this here, the penultimate section of the paper questions the immutability of sustainability certificates as an ecological commodity. To foreground this theoretically, while Castree’s sextet encapsulates capitalist commodification to its point of purchase, scholars have noted that it is not the end of the journey for the commodity *per se*. Goods are de-commodified upon final consumption, wherein their use-value is realised and the commodity’s abstract quality re-contextualised within signifying social practices (Sayer 2003). Moreover, fictitious commodification is not a conclusive act. Successive waves of commodity production require re-legitimation and a set of stories that explains the treatment of socio-natural commodities for their time (Peluso 2012). Recognising that “objects can move in and out of, and back and forth from, commodity status” helps us remain sensitive to the possibilities for challenging this logic in the first place, as well as shaping the political and environmental outcomes to which it gives rise (Bakker 2005: 545).

As we saw earlier, the use-value of sustainability certificates has been destabilised by campaign groups who see GreenPalm as a means of greenwash. Clearly, some manufacturers and retailers are concerned that certificates bought on the market and used to ‘offset’ conventional palm oil purchases no longer insures them against damaging reputational attacks. Framed in terms of Sayer’s point, the commodity no longer has the same social meaning when ‘consumed’ in the form of corporate public relations statements and social responsibility pledges. The falling exchange-value of certificates has also played into this dynamic. By weakening the attraction of the RSPO to palm oil producers, the scheme has not increased its coverage of the industry as quickly as it might. This is of critical importance given that certificate trading has been justified by the RSPO and its key members precisely because of its ability to expand uptake and ultimately make itself obsolete.⁷ As Figure 3 shows, certified output on existing plantations has not kept pace with the number of new ones being established, based mainly in Indonesia. In fact, more ‘unsustainable’ palm oil was being produced in 2012 than when the RSPO began certifying in 2008. Framed in terms of Peluso’s point, the narrative that holds out certificate trading as instrumentally useful in reaching the fabled ‘tipping point’ would appear to be losing credibility.

INSERT FIGURE 3 HERE

While these criticisms may oppose the marketisation of sustainability certificates, they do not necessarily oppose the continued commodification of sustainability itself. Some of those organisations hesitant about certificate trading have formed a Palm Oil Innovation Group, which, amongst other things, has set out to explore ways to shift to fully traceable, segregated supply-chains (see Greenpeace 2013). Interestingly, in its own work the WWF has also begun to explore ways of enlisting producers to the RSPO without the need for sustainability premiums, like convincing investors to make loans and equity purchases contingent on certification (WWF 2012b: 35). However, aside from their challenge to valuation, the other processes of commodification remain intact, reminding us of the point made earlier about resistance to neoliberal ecologies being readily reincorporated.

But not all critics fall into this reformist camp. Some have expressed scepticism at the very idea of defining an industrial monoculture like palm oil as sustainable and governing this through corporate-centric market mechanisms (see Acción Ecológica and 255 others 2008; World Rainforest Movement 2010). This goes beyond an attack on the use-value of sustainability certificates and instead focuses on its underlying fictive status. Just as Polanyi argued that nature should not be reduced to the 'economically-useful' commodity-form land, from this perspective neither should tropical forests be reduced to sustainable palm oil. Thus, rather than 'selling nature to save it', anti-industry and/or non-market modes of governance are elevated instead. These include:

- tackling the demand-side of palm oil by preventing its use in biofuel markets and persuading manufacturers to switch to 'deforestation-free' vegetable oils;
- pressuring finance capital to avoid funding palm oil developments;
- encouraging state officials to restore degraded forest and peatland and divert future agricultural expansion into grassland;
- launching and enforcing national moratoriums on the conversion of forest and peatland; and
- promoting greater accountability to local communities affected by land development and reparations for those already alienated from it.

There is not necessarily any *practical* contradiction between advocating these strategies at the same time as supporting the RSPO project. Indeed, many civil society organisations – both members and non-members – have done this in varying combinations already (see Greenpeace 2008; Union of Concerned Scientists 2012; Wetlands International 2013). But there is an inevitable prioritisation, and the concern of some of the more hardened opponents to the RSPO is that the scheme detracts attention from these alternatives (see World Bank Group 2011: 30) and the counter-hegemonic social forces from which some of them spring. In short, the RSPO has served only to debase sustainability and displace conservation politics.

Conclusion

From the 1980s onward and under the wing of neoliberal ideology, new ecological commodities began to emerge that purported to achieve conservation through capitalism. These included debt-for-nature swaps, wetlands offset permits and carbon sequestration projects among others. Sustainability certificates have followed this vanguard and comprise yet another case of what Smith (2007) labelled "nature as accumulation strategy", wherein ecological commodities are consciously constructed via social practices like environmental audits and intellectual property protection as a conduit for capital circulation. But, to borrow Bakker's (2005) phrase, the sustainability certificate has been an "uncooperative commodity". Its fictive status has allowed continued challenges to be made to the partial 'check-list' translation of sustainability on which it rests. Moreover, its highly subjective use-value – namely, convincing audiences that the actions of a company are ethical – has only provoked a series of interrogations into the specious connection between purchasing certificates and preserving tropical forest. Attempts to raise the standard of sustainability within the scheme, allied to the disappointing exchange-value of certificates, have only angered producers. Indeed, in 2011 the Indonesian Palm Oil Association quit the RSPO altogether, prompting another round of deliberations within civil society as to whether it is better to work with or against such corporations through such schemes.⁸ The commodification of sustainability in this case, while highly advanced, is far from conclusive.

What does this case contribute to the literature on primary commodities more generally? For those studying the international trade in certified commodities, and the 'roundtable' alliances of corporate and civil society organisations that have spawned them, this paper has showed that they are no longer just a form of 'non-state, market-driven' governance; they are also *market-making*. While scholars have explored the way that consumer demand has been created for 'eco-labelled' products and the auditing industry within existing markets (Ponte 2012), this paper showed how a *new* market for a distinct asset class has been grafted onto the physical palm oil trade. Consequently, this has sharpened disputes over the distributional politics of the scheme and opened the door to the disintermediation and financialisation of the trade in primary commodities; a process that has already begun to proliferate as similar certification schemes in soy beans and sugarcane imitate the RSPO.

For those studying the commodification of nature, meanwhile, it is the other part of the 'non-state, market-driven' description which offers insight. As noted earlier, the under-production of the conditions of production leads sporadically to crisis, inducing capital to restructure these conditions by exerting more control over them. What is pertinent in this case is how the crisis of revenue loss resultant from environmental degradation was partly displaced into a *non-state* institution.⁹ Unlike all the other instances of commodification mentioned in this paper – as well as other forms of certificate trading such as those for 'green' electricity – this one was not orchestrated by national- or inter-governmental actors. This may suggest that the possibility to democratise the apparatus of planning, which is the normative preference for some Marxist scholars, has been foreclosed (O'Connor 1988). Yet because of the dependence of the RSPO on NGO support for public legitimacy, the voices of some campaign groups have been amplified, especially those that can operate transnationally.¹⁰ As both lightning rod and roundtable forum, the RSPO has brought increasing levels of social scrutiny to the activities of the palm oil industry and opened up some spaces in which societal demands can be levied on economic activity (McCathy 2012).

Finally, and more speculatively, this case also points to how exchange relations might be transcended through Polanyi's notion of reciprocity. Extending our earlier reading of his moral analysis, reciprocity can be said to entail an attitude of mutuality between buyers and sellers and an awareness of common interests, of not passing on harm to others (Watson forthcoming). Despite its embrace of market exchange relations, this is something the RSPO does speak to: it allows buyers *not* to implicate themselves in direct environmental degradation. Although certification is not necessarily the only or best institutional means of advancing an entirely different means of circulation, it contains a kernel of transcendence which is worth exploring further.

References

- Acción Ecológica and 255 Others (2008) 'International Declaration against the 'Greenwashing' of Palm Oil by the Roundtable on Sustainable Palm Oil', Joint Press Release, 17 November 2011. Available at: <http://www.biofuelwatch.org.uk/docs/17-11-2008-ENGLISH-RSPOInternational-Declaration.pdf>
- Bakker, K. (2005) 'Neoliberalizing Nature? Market Environmentalism in Water Supply in England and Wales', *Annals of the Association of American Geographers*, 95: 3, 542-565.
- BBC (n.d.) 'Nestlé's Response to Panorama Investigation' BBC webpage. Available at: www.news.bbc.co.uk/nol/shared/bsp/hi/pdfs/panorama_nestle.pdf
- Bhui, A. (2009) 'Smaller Premiums to Slow 'Green' Palm Certification', Reuters webpage, 11 August 2009. Available at: <http://www.reuters.com/article/2009/08/11/us-rspo-indonesia-interview-idUJSTRE57A2N020090811>
- Bryant, R. and Parnwell, M. (1996) 'Introduction' in Bryant, R. and Parnwell, M. eds. *Environmental Change in South-East Asia: People, Politics and Sustainable Development*. London: Routledge, 1-19.
- Büscher, B., Sullivan, S., Neves, K., Igoe, J. and Brockington, D. (2012) 'Towards a Synthesized Critique of Neoliberal Biodiversity Conservation', *Capitalism Nature Socialism*, 23: 2, 4-30.

Coase, R. (1960) 'The Problem of Social Cost', *Journal of Law and Economics*, 3, 1-44.

Callon, M. (1998) *The Laws of the Markets*. Oxford: Blackwell Publishers.

Cashore, B. (2002) 'Legitimacy and the Privatization of Environmental Governance: How Non-State Market-Driven (NSMD) Governance Systems Gain Rule-Making Authority', *Governance: An International Journal of Policy, Administration, and Institutions*, 15:4, 503-529.

Castree, N. (2003) 'Commodifying What Nature?', *Progress in Human Geography*, 27:3, 273-297.

Castree, N. (2007) 'Neoliberal Ecologies', in Heynen, N., McCarthy, J., Prudham, S. and Robbins, P. eds. *Neoliberal Environments: False Promises and Unnatural Consequences*. Abingdon, Oxon: Routledge, 281-286.

Chew, A. (2010) 'Indonesian Association Says RSPO Certification Too Costly', *The Star*, 26 August 2010. Available at:

<http://www.thestar.com.my/story.aspx?sec=business&file=%2f2010%2f8%2f26%2fbusiness%2f6913706>

Culliney, K. (2013) 'Kellogg Defends JV with Wilmar after Illegal Palm Oil Accusations', *Bakery and Snacks Newsletter*, 12 July 2013. Available at: <http://www.bakeryandsnacks.com/Regulation-Safety/Kellogg-defends-JV-with-Wilmar-after-illegal-palm-oil-accusations>

Duffy, R. (2010) *Nature Crime: How We're Getting Conservation Wrong*. New Haven: Yale University Press.

Fairhead, J., Leach, M. and Scoones, I. (2012) 'Green Grabbing: A New Appropriation of Nature?', *Journal of Peasant Studies*, 39:2, 237-261.

Fine, B. (2010) 'Locating Financialisation', *Historical Materialism*, 18: 2, 97-116.

Gómez-Baggethun, E. and Pérez, M. R. (2011) 'Economic Valuation and the Commodification of Ecosystem Services', *Progress in Physical Geography*, 1-16.

GreenPalm (2009) *A Fresh Approach to Delivering Sustainability* (Hull: Book&Claim Limited). Available at: <http://www.greenpalm.org/upload/files/6/GreenPalm-Overview-2009.pdf>

GreenPalm (2012) 'GreenPalm Celebrates Trade of Five Millionth Certificate', GreenPalm blog, 2012. Available at: <http://www.greenpalm.org/en/blog-press/blog/greenpalm-supports-5-million-tons-of-rspo-certified-palm-oil>

Greenpeace (2008) *United Plantations Certified Despite Gross Violations of RSPO Standards*. Amsterdam: Greenpeace Netherlands.

Greenpeace (2013) 'Palm Oil Companies Join NGOs to Find Palm Oil Solutions', *Greenpeace Press Release*, 28 June 2013. Available at: <http://www.greenpeace.org/international/Global/international/photos/forests/2013/Indonesia%20Forest%20POIG%20Statement%2028%20June%202013.pdf>

Guthman, J. (2002) 'Commodified Meanings, Meaningful Commodities: Re-thinking Production-Consumption Links through the Organic System of Provision', *Sociologia Ruralis*, 42: 4, 295-311.

Harvey, D. (1996) *Justice, Nature and the Geography of Difference*. Oxford: Blackwell.

Harvey, D. (2003) *The New Imperialism*. Oxford: OUP.

Hooijer, A., Page, S., Canadell, J., Silvius, M., Kwadijk, J. Wosten, H., and Jauhainen, J. (2010) 'Current and Future CO2 Emissions from Drained Peatlands in Southeast Asia', *Biogeosciences*, 7, 1505-1514.

Lohmann, L. (2010) 'Uncertainty Markets and Carbon Markets: Variations on Polanyian Themes', *New Political Economy*, 15: 2, 225-254.

Marx, K. (1995 [1867]) *Capital: A New Abridgement*. Oxford: Oxford University Press.

Marx, K. (1981) *Capital: Volume III*. London: Penguin Books.

McAfee, K. (1999) 'Selling Nature to Save It? Biodiversity and Green Developmentalism', *Society and Space*, 17:2, 203-219.

McCarthy, J. (2012) 'Certifying in Contested Spaces: Private Regulation in Indonesian Forestry and Palm Oil', *Third World Quarterly*, 33: 10, 1871-1888.

NBPOL (2011) Written Evidence Submitted by New Britain Palm Oil Limited to the Environmental Audit Commons Select Committee, 5 May 2011. Available at: <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmenvaud/879/879vw29.htm>

O'Connor, J. (1988) 'Capitalism, Nature, Socialism: A Theoretical Introduction', *Capitalism, Nature, Socialism*, 1: 1, 11-38.

Palm Oil Consumer Action (2013) 'Consumer Groups Slam Greenwashing in Sustainable Palm Oil Marketing', *SB Wire Press Releases*, 6 August 2013. Available at: <http://www.sbwire.com/press-releases/consumer-groups-slam-greenwashing-in-sustainable-palm-oil-marketing-298490.htm>

Parnwell, M. and Bryant, R. (eds) (1996) 'Introduction' in *Environmental Change in South-East Asia: People, Politics and Sustainable Development*. London: Routledge, 1-25.

Parulian, J. C. and Beamish, C. (2012) 'Wilmar: The Case of Segregated Versus Mass Balance', Sustainable Palm Oil Platform Case Studies webpage, 29 August 2012. Available at: <http://www.sustainablepalmoil.org/standards-certification/certification-schemes/case-studies/wilmar-comparing-mass-balance-and-segregated-supply-chains/>

Peluso, N. (2012) 'What's Nature Got To Do With It? A Situated Historical Perspective on Socio-Natural Commodities', *Development and Change*, 43: 1, 79-104.

Pigou, A. C. (1920 [1932]) *The Economics of Welfare*. London: Macmillan.

Polanyi, K. (2001 [1944]) *The Great Transformation: The Political and Economic Origins of Our Time*. Boston: Beacon Press.

Ponte, S. (2012) 'The Marine Stewardship Council (MSC) and the Making of a Market for Sustainable Fish', *Journal of Agrarian Change*, 12: 2, 300-315.

Prudham, S. (2009) 'Commodification' in Castree, N., Demeritt, D., Liverman, D. and Rhoads, B. eds. *A Companion to Environmental Geography*. Chichester: Wiley-Blackwell, 123-138.

Prudham, S. and Heynen, N. (2011) 'Uneven Development 25 Years On: Space, Nature and the Geographies of Capitalism', *New Political Economy*, 16: 2, 223-232.

Raynolds, L. T. (2000) 'Re-Embedding Global Agriculture: The International Organic and Fair Trade Movements', *Agriculture and Human Values*, 17: 3, 297-309.

Renard, M-C. (2003) 'Fair Trade: quality, Market and Conventions', *Journal of Rural Studies*, 19, 87-96.

Robertson, M. (2004) 'The Neoliberalization of Ecosystem Services: Wetland Mitigation Banking and Problems in Environmental Governance', *Geoforum*, 35: 3, 361-373.

Roundtable on Sustainable Palm Oil (2011) *2011 RSPO CSPO Growth Interpretation Narrative*. Kuala Lumpur: RSPO Secretariat.

Roundtable on Sustainable Palm Oil (2013a) 'RSPO Certification FAQs', RSPO webpage. Available at: http://www.rspo.org/en/RSPO_CERTIFICATION_FAQ

Roundtable on Sustainable Palm Oil (2013b) 'GreenPalm Book & Claim Certificates FAQs', RSPO webpage. Available at: http://www.rspo.org/en/greenpalm_certificates_faqs

Roundtable on Sustainable Palm Oil (2013c) 'Trademark FAQs', RSPO webpage. Available at: <http://www.rspo.org/en/faqs>

Roundtable on Sustainable Palm Oil (2013d) 'CSPO Uptake and Production', RSPO webpage. Available at: www.rspo.org/file/CSPO-Uptake-and-Production-AUGUST_final.pptx

Sayer, A. (2003) '(De)Commodification, Consumer Culture, and Moral Economy', *Environment and Planning D*, 21: 3, 341-357.

Silva-Castañeda, L. (2012) 'A Forest of Evidence: Third-Party Certification and Multiple Forms of Proof – A Case Study of Oil Palm Plantations in Indonesia', *Agriculture and Human Values*, 29, 361-370.

Smith, N. (2007) 'Nature as Accumulation Strategy' in Panitch, L. and Leys, C. eds. *Socialist Register: Coming to Terms with Nature*. New York: Monthly Review Press, 17-36.

Stephan, B. (2012) 'Bringing Discourse to the Market: The Commodification of Avoided Deforestation', *Environmental Politics*, 21: 4, 621-639.

The Economics of Ecosystems and Biodiversity (2010) *Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations of TEEB*. Malta: Progress Press.

Unilever (2013) 'Sustainable Palm Oil: Our Targets', Unilever webpage. Available at: <http://www.unilever.com/sustainable-living/sustainablesourcing/palmoil/ourtargets/index.aspx>

Union of Concerned Scientists (2012) 'Palm Oil and Tropical Deforestation', UCS webpage, 2 June 2012. http://www.ucsusa.org/global_warming/solutions/forest_solutions/palm-oil-and-forests.html

United States Department of Agriculture (2013) 'Production, Supply and Distribution Online', USDA webpage. Available at: <http://www.fas.usda.gov/psdonline/psdhome.aspx>

Watson, M. (forthcoming) 'The Great Transformation and Progressive Possibilities: The Political Limits of Polanyi's Marxian History of Economic Ideas', *Economy and Society*, accepted for publication.

Wetlands International (2013) 'Our Actions: Roundtable on Sustainable Palm Oil', Wetlands International webpage. <http://www.wetlands.org/Whatwedo/Ouractions/tabid/2661/mod/601/articleType/ArticleView/articleId/3055/Roundtable-on-Sustainable-Palm-Oil-RSPO.aspx>

World Bank Group (2011) *The World Bank Group Framework and IFC Strategy for Engagement in the Palm Oil Sector*. Washington DC: World Bank Group.

World Rainforest Movement (2010) *RSPO: The 'Greening' of the Dark Palm Oil Business*. Montevideo: WRM.

World Wide Fund for Nature (2011) *Palm Oil Buyers' Scorecard 2011*. Switzerland: WWF.

World Wide Fund for Nature (2012a) *Better Production for a Living Planet*. Switzerland: WWF.

World Wide Fund for Nature (2012b) *Profitability and Sustainability in Palm Oil Production*. Switzerland: WWF.

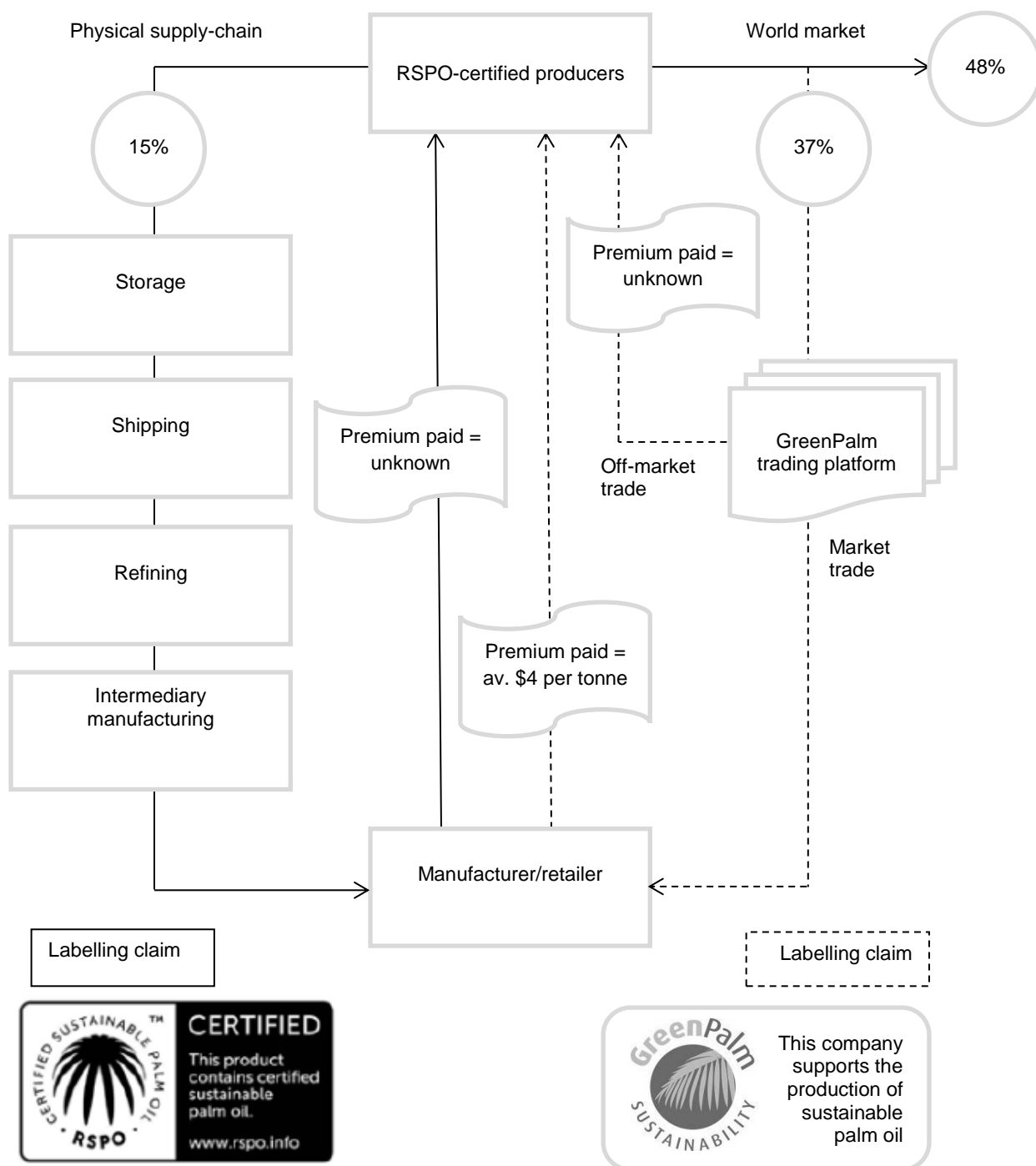
World Wide Fund for Nature (2013) 'What are the Sustainable Palm Oil Supply Chains?', WWF webpage. Available at:

http://wwf.panda.org/what_we_do/footprint/agriculture/palm_oil/solutions/responsible_purchasing/scorecard2011/supplychains.cfm

Žižek (2011) 'First as Tragedy, then as Farce', RSA Animated Video, uploaded 28 July 2010. Available at: <http://www.youtube.com/watch?v=hpAMbpQ8J7g>

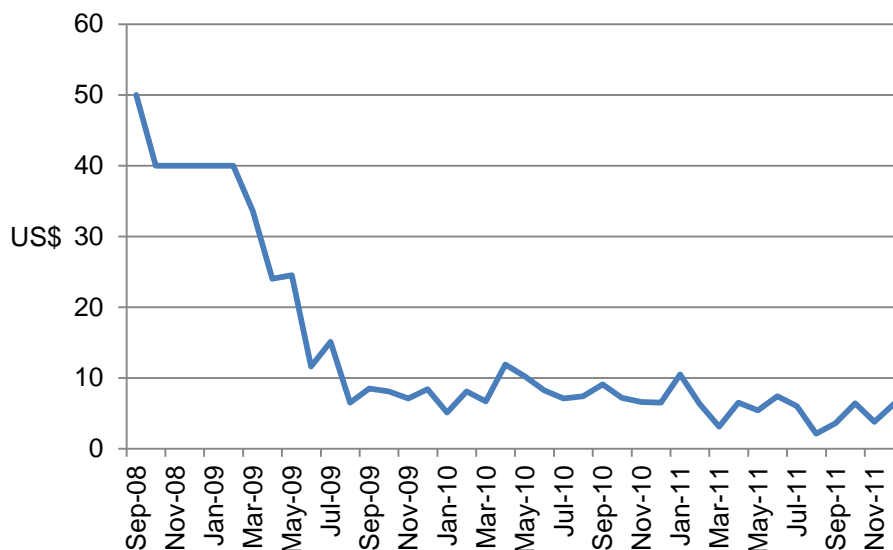
Figures

Figure 1: Tracing the Flow of Certified Sustainable Palm Oil



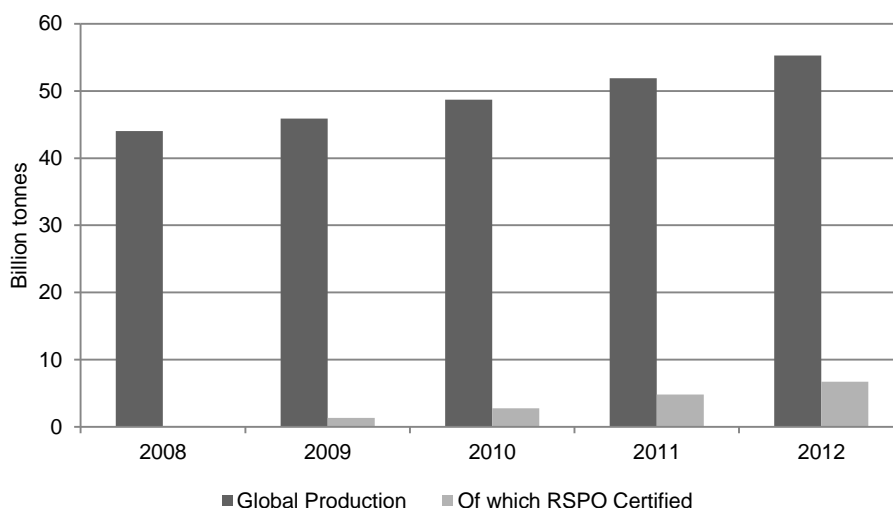
Note: Figures show the destination of the palm oil produced by certified millers and growers for 2012 (RSPO 2013d).

Figure 2: The Price of RSPO Certificates traded on GreenPalm, Sept 2008-Dec 2011



Source: RSPO 2011: 18.

Figure 3: Global Production of Palm Oil and RSPO-Certified Palm Oil



Data from USDA (2013) and RSPO (2013d)

¹ The first independent smallholders received RSPO certification in 2012 and sold their certificates on the market independently of their physical palm oil.

² This is especially so for smaller companies and/or those using derivatives of palm oil, which cannot easily trace the source of their raw material back through the supply-chain and re-organise them accordingly.

³ The RSPO has tried to mitigate this by requiring members to commit to certifying all of their production units within a specific time-scale, not just their flagship mill, and to respect some of the basic criteria of its sustainability standard across the board (a protocol pushed for by NGO members Oxfam and Sawit Watch). However, the time-scales still allow scope for wrongdoing, the auditing of non-certified mills is not as thorough, and of course, these requirements only apply to those companies that are already members of the RSPO.

⁴ Palm oil price is for crude palm oil in nominal \$ listed on the World Bank's GEM Commodities database.

⁵ Others include switching to different vegetable oils, hiring PR firms, funding studies to discredit allegations, etc.

⁶ Nestlé claims to use 0.7% of the world's supply of palm oil (BBC n.d.)

⁷ If the entire palm oil industry is certified, there will be no need to sell certificates and trace them through the supply-chain since, by default, all end-users will be sourcing sustainable palm oil. At this point, the market for sustainability will cease to exist.

⁸ The Indonesia Palm Oil Association withdrew ostensibly because of an NGO push to prohibit the use of peatland in the standard. Despite quitting, the Association allowed its members to maintain their ties with the RSPO but obliged them to follow the requirements of its alternative certification standard for Indonesian Sustainable Palm Oil.

⁹ The state has not been excluded from planning. See for instance the agreement among the Association of Southeast Asian Nations to tackle cross-border air pollution caused primarily by seasonal burning of land to clear it for oil palm cultivation.

¹⁰ As of September 2013 the RSPO boasted 38 members classified as social and development or environmental and conservation NGOs.