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## New frontiers: an enriched perspective on extraction frontiers in Indonesia

Edwin B. P. de Jong<sup>a</sup>, Luuk Knippenberg<sup>b</sup> and Laurens Bakker<sup>c</sup>

<sup>a</sup>Department of Anthropology and Development Studies, Radboud University Nijmegen, Nijmegen, Netherlands; <sup>b</sup>Department of Anthropology and Development Studies, Institute for Science, Innovation and Society, Radboud University Nijmegen, Nijmegen, Netherlands; <sup>c</sup>Department of Anthropology, University of Amsterdam, Amsterdam, Netherlands

### ABSTRACT

Changes in the nature, scale, and speed of natural resource extraction, especially in the last two decades, have resulted in many new resource extraction areas emerging across the world. By zooming in on Indonesia, this article shows that the underlying causes and consequences of current trends are more complex than portrayed by the rancher-squatter model of frontiers that is still frequently used to explain these developments. We argue that a broadened frontier notion is necessary to address the multifaceted nature of the processes underway in contemporary Indonesian extraction areas, as well as beyond. We propose a perspective that pays explicit attention to four new developments that can be described by using the hybridization of space, time, actors, and rules, and are characterized by the fact that these processes create new perimeters in all four mentioned areas. In so doing, we challenge, broaden, and renew the meaning of frontiers.

### KEYWORDS

Frontiers; natural resources; hybridization; Indonesia; interstitial space

## Introduction

The exploitation of regions rich in natural resources has intensified rapidly in recent decades. This process is driven by a growing demand for, and investments in, soya, palm oil, and other bio-industrial cash crops for food or energy, a growing demand for natural resources, carbon-storage trading initiatives such as the Reduced Emissions from Deforestation and Forest Degradation (REDD+) scheme and other environmentally driven programs, and portfolio diversification by financial institutions.<sup>1</sup> The actors behind the process are as diverse as the drivers, attracted by the huge potential for fast and vast profits. Clashing interests, outlooks, and power relationships have given rise to various types of conflict, at times accompanied by a weakening of central state control.

Contemporary resource areas have much in common with the frontier regions described in earlier literature. These accounts define frontiers as uninhabited or

**CONTACT** Edwin B.P. de Jong  [e.dejong@maw.ru.nl](mailto:e.dejong@maw.ru.nl)  Department of Anthropology and Development Studies, Radboud University, Thomas van Aquinostraat 6, Nijmegen 6500 HE, Netherlands

<sup>1</sup>White and Dasgupta 2010; Deininger et al. 2011; Osborne 2011; Cotula 2012; German et al. 2014.

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underpopulated areas on the fringes of civilization and state control, waiting to be civilized and put into production.<sup>2</sup> Frederick Jackson Turner saw the transformation of these “wild spaces” into spaces of civilization as unavoidable and desirable, following a linear teleological pathway toward greater state control, increased law and order, and more institutions.<sup>3</sup> He located these frontiers at the periphery of existing states and labeled them bare areas waiting to be incorporated into the state by means of settlement.<sup>4</sup>

In more recent frontier literature, this settler-oriented perspective on frontiers has been widened to include extraction and control perspectives.<sup>5</sup> Frontiers of the extractive type do not necessarily need the establishment of settler colonies.<sup>6</sup> Frontiers of control are usually state borderlands that are indirectly ruled by the state via control over major towns, infrastructure, and trade.<sup>7</sup> All three types of frontiers “share the essential quality of being geographical regions with peculiar political, economic, social and cultural characteristics which are not found in the core areas of state control.”<sup>8</sup> The idea of conquest and subjugation, and of “nationalizing space” still form the core of the concept along with the belief that these frontier regions are underused, underpopulated, and under-civilized.<sup>9</sup>

The value of the frontier notion is that it grounds and defines abstract processes in concrete actions, effects, spaces, and places.<sup>10</sup> Another value of the frontier notion is that it underlines important continuities between earlier and present forms of natural resource extraction and agricultural expansion in so-called peripheral regions around the world.

However, there is a risk of applying the concept in an overly narrow sense, thereby only addressing issues regarding the delineation, control, and ownership of land in unclaimed or under-cultivated areas of, for instance, the Amazon region in Latin America,<sup>11</sup> sub-Saharan Africa,<sup>12</sup> or Southeast Asia.<sup>13</sup>

A more serious problem is that the notion of frontiers tends to obscure the fact that there are important qualitative metamorphoses in contemporary frontiers that result from upscaling in terms of size, speed, and intensity. A good example is the large-scale appropriation of land that is already being intensively used to satisfy local needs by local and sometimes international companies. Generally, these firms, in Indonesia for example, have no intention of stimulating civilization, institutionalization, law and order, or political control. Their only goal is to transform these areas into plantations or large-scale production areas for export crops, and only for as long as these areas are productive. Even ownership of the land is often not a goal, just making a profit. Although land deals are not new, the direct acquisition of land for economic purposes on this scale and in this way were unanticipated at the time of past state acquisitions, not even during the heydays of nineteenth-century colonialism.<sup>14</sup>

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<sup>2</sup>Turner 1963; Billington 1971.

<sup>3</sup>Turner 1963.

<sup>4</sup>Geiger 2009.

<sup>5</sup>Geiger 2009.

<sup>6</sup>Friedmann 1996, 2; Geiger 2009, 33.

<sup>7</sup>Geiger 2009, 34.

<sup>8</sup>Kopytoff 1987; Gaubatz 1996; Geiger 2009, 35.

<sup>9</sup>See Geiger (2009) for a more elaborate account on the conceptualization of the frontier notion and a more extensive explanation of the extraction and control perspectives.

<sup>10</sup>A good example of this use of the frontier notion is found an article by McCarthy, Gillespie, and Zen (2011) on the negative impacts of palm oil extraction for beauty products on the rights of indigenous people and smallholders in Indonesia.

<sup>11</sup>See, for example, Hoefle 2006; Jepson 2006.

<sup>12</sup>See, for example, Kopytoff 1987; Le Meur 2006; Bach 2013.

<sup>13</sup>See, for example, Tsing 2005; Barney 2009.

<sup>14</sup>See Kelly and Peluso 2015, 473.

Such large-scale land acquisitions are now taking place in countries as varied as Brazil, Ethiopia, and Indonesia. They are arranged through complex deals, require the existence of sophisticated, often international, law, and as a result, are often realized with the help of international, national, and local brokers, firms and lawyers; and, when and wherever needed, some extra less lawful pushing or placating. Lorenzo Cotula goes as far as to argue that this new global land rush has created a new turning point in relationships between North and South.<sup>15</sup>

The same reasoning holds for new complex environmental schemes, such as REDD+, that generate new and hybrid forms of cooperation between local, national, and international players, and require new perspectives on the interaction between nature, economy, and climate and, as a result, a new perspective on law, business, and investments. The objective behind REDD+ is to reduce emissions that lead to climate change by protecting or restoring nature with carbon-storage capacity in Southern countries, such as Indonesia.

In the same vein, Lorenzo Cotula has noted that the contemporary run for biofuels in Western countries has forged new constellations of energy, agribusiness, and biotech companies that have brought about new crops (e.g. *jatropha*) and have found new uses for crops such as rapeseed, sugar cane, and palm oil.<sup>16</sup>

Some authors propose frontier concepts that include many of the above-mentioned phenomena.<sup>17</sup> In reality, the contemporary notion of frontiers also links to a broad range of related debates, such as discussions on land grabbing and land reform, national sovereignty, geopolitics, financial investments, food security, climate change, property rights, biodiversity, new forms of interaction with nature, national identity and borderlands, and the limits of democracy.<sup>18</sup>

However, crucial aspects remain underexposed or underdeveloped, aspects that would benefit from upholding the notion that we are again witnessing a hybrid contemporary empirical reality in frontier regions. We highlight this by drawing on Indonesia, and specifically Kalimantan, to elucidate the shifting of borders into areas that are as yet unknown. To do so, we draw on our fieldwork in the region between 2002 and 2015, predominantly in the provinces of East and West Kalimantan.

Borders that once were clear and solid between physical areas, local and supra-local actors, distinct notions of time and space, or opposing notions such as nature and culture, have become hybrid. This is to say, existing boundaries have been renewed while new boundaries have been drawn, and what these boundaries are has been redefined such that the boundaries between concepts and objects that were once solid and distinct have been fading away, or at least transformed. The newness in our idea of frontiers is that it questions existing frontiers, both physical and non-physical, and points the way toward new types of delineation. In the remainder of this paper, we therefore broaden the focus further by drawing upon the perspectives of hybridity and interstitial space, while building

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<sup>15</sup>Cotula 2012, 672.

<sup>16</sup>Cotula 2012, 673.

<sup>17</sup>De Konink 2006; Little 2001; Tsing 2005, 2008; Li 2014.

<sup>18</sup>See, for example, Hoefle 2006; Fox and Swamy 2008; Elden 2010; Ishikawa 2010; Nooteboom and de Jong 2010; White and Dasgupta 2010; Anseeuw, Ducastel, and Gabas 2011; Eilenberg 2011; Fassin 2011; McCarthy, Gillespie, and Zen 2011; Peluso and Lund 2011; Cotula 2012; Verbrugge 2015.

upon the most recent frontier studies that put forward the idea that we should move beyond the nature–culture divide.

### **Indonesian frontierization processes**

There have been two major stimuli of frontiers in Southeast Asia.<sup>19</sup> The first was the growing worldwide demand for bulk tropical agricultural products such as rice, rubber, and hardwoods beginning in the 1850s.<sup>20</sup> This triggered rapid land reclamation in the region. The second, from the 1950s onwards, was caused by growing demands for food and natural resources spurred by rapid population growth and the introduction of new crops and technologies. In this second phase, the frontier primarily pushed up into the highlands.<sup>21</sup>

While plantations and estates played a major role in the colonization of frontiers, small-holders were the driving force behind agricultural expansion. Often, such people set out for these frontiers on their own initiative, or were indirectly stimulated by the state through the building of infrastructure, and sometimes even directly, as in Indonesia, by state-subsidized resettlement schemes.

We have identified eight specific drivers behind the rapid expansion of frontier areas in Indonesia: (1) a strongly growing demand for fossil fuels and new fossil fuel extraction areas from the 1970s onwards; (2) the call for democratization and decentralization, after the fall of President Suharto, resulting in empowerment of local governments and erosion of national authority; (3) the proliferation of new laws and regulations; (4) a rocketing demand for new energy resources, such as biofuels, since the turn of the century; (5) a growing demand from BRIC countries, primarily China, for all kinds of natural resources and food; (6) a search by governments, since roughly 2010, for natural locations to store carbon to mitigate the effects of climate change, combined with new international financial arrangements; (7) widespread financial deregulations since the 1990s accompanied by the worldwide circulation of huge amounts of cheap money, which has increased investments in the resource exploitation areas; and (8) the introduction of new private property regimes grounded in international law that replace or run parallel to cultural, regional, and national laws and lead to a growing monetization of food production and conservation.

These new drivers have resulted in new arrangements that address some aspects of traditional perspectives on frontiers while introducing others.

### ***An increasing role for international actors, private companies, and NGOs***

In Indonesia, multinational corporations established themselves in Kalimantan, Papua, Sulawesi, Sumatra, and elsewhere to exploit natural resources beginning in the 1970s.<sup>22</sup> The underlying objective was state-led development controlled by a centralized state apparatus that depended heavily on military power to control outer frontier regions. In

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<sup>19</sup>Hall, Hirsch, and Li 2011.

<sup>20</sup>See, for instance, Ingram 1971.

<sup>21</sup>Hall, Hirsch, and Li 2011, 29.

<sup>22</sup>Volkman 1985, 135.

the early 1990s, privatization was embraced although the main beneficiaries remained much the same: the President's family and his close cronies. As a result, foreign investments in the natural resource-rich regions of the archipelago were even more strongly stimulated, leading to the opening up of many new frontiers. State policy privileged corporate control over natural resources, with huge tracts of land assigned to logging, mining, pulp, and paper companies.<sup>23</sup>

At the same time, a counter movement emerged worldwide, with the aim of protecting nature from further degradation. Alarming signs that natural resources, species, and landscapes were dwindling fast, especially in tropical regions, triggered this movement. The goal was to protect at least some areas and endangered species against commercial interventions by creating nature reserves. However, this conservation movement led to ambiguity over ownership, access, use, and allocation of areas turned into reserves.<sup>24</sup> In Kalimantan, this struggle peaked in 2005 with the presentation of the "Heart of Borneo" conservation vision and action to protect an area of 220,000 square kilometers.<sup>25</sup> This initiative involved UN agencies, ASEAN, government agencies from Brunei, the Malaysian states of Sabah and Sarawak, and Indonesia, as well as NGOs such as Nature Conservancy, the Wildlife Conservation Society, Conservation International, and World Wildlife Foundation, and corporate funders such as the Hong Kong-Shanghai Bank Corporation.<sup>26</sup> The proposed area covered parts of the Indonesian province of Kalimantan, Brunei Darussalam, and the Malaysian provinces of Sarawak and Sabah. Indonesia gave its official support for the project in 2006, leading to considerable local unrest. This recalls the traditional frontier neglect of the rights and voices of indigenous people. Yet, this also illustrates a characteristic of new frontiers: a cross-border nature reserve involving three countries, and an actor network that included an array of national and supra-national players, public and private as well as non-profit and for-profit organizations.

### ***"Good governance" and radical institutional reformation***

In 1998, President Suharto's authoritarian and highly centralized regime was overthrown. Democratization and decentralization became the new paradigm. Regional governments were granted substantial autonomy and local governance was strengthened. These radical institutional reforms were inspired by notions of good governance as developed in the West. However, these expectations were not met in Indonesia with respect to natural resource policy. In some instances, developments were clearly in the opposite direction. In many places, the exploitation of natural resources intensified: huge tracts of forestland were designated for logging, mining, and oil palm plantations. A new law on regional government (No. 22/1999), which authorized districts and municipalities to manage their affairs pursuant to their needs, goals, and capacities incited regional euphoria, but also generated fragmentation and greed.<sup>27</sup> Local governments initiated all kinds of rent-seeking activities, an attitude that was encouraged by an attitude that was encouraged by this new law, which mandated up to eighty percent of revenues from

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<sup>23</sup>Tsing 2008, 138.

<sup>24</sup>Tsing 2008, 155–156.

<sup>25</sup>Persoon 2007, 27.

<sup>26</sup>Dewi 2013.

<sup>27</sup>Patlis 2008, 419.

natural resource industries were to be directed to the regional governments. Previously, the figure was twenty percent. Communities residing in or near forest areas were permitted to collectively exploit and even log forests.<sup>28</sup> Moreover, governors were allowed to grant concessions of up to 10,000 ha and district heads of 100 ha to private companies.<sup>29</sup> The result was a logging boom in Indonesia that, although small scale in each location, resulted in the fastest and most widespread deforestation Indonesia had ever witnessed. Frontiers opened up everywhere.<sup>30</sup>

### ***Ambiguous laws, power, and institutions***

This period can be seen as a phase in which “the frontier began to spin out of control even from the perspective of capitalist investors and migrant entrepreneurs.”<sup>31</sup> The depth and scale of these processes were new in the sense that frontiers started to (re)emerge in regions that had long since been politically integrated into the Indonesian state, such as various coastal regions of East, West, and Central Kalimantan.<sup>32</sup>

It is clear that decentralization does not necessarily result in democratization, good governance, or the strengthening of civil society at the regional level. In the case of post-Suharto Indonesia, “we often witness a decentralization of corruption, collusion and political violence that once belonged to the centralized regime of the New Order, and is now molded into the existing patrimonial patterns at the regional level.”<sup>33</sup> Elected leaders had to pay back businesses and rich individuals who financed their nomination process to become governors or district heads.<sup>34</sup> All these changes, taking place toward the end of the 1990s and in the early 2000s, generated new impacts in frontier regions, in the sense of being caused by unfamiliar drivers and resulting in unexpected political consequences. They were not new in the sense of promulgating corruption, since this was rampant in the past, but they were surely new in the way that central power became corroded along with its main institutional pillars, such as the police, district heads, and governors, without the prospect of new forms of accountable local governance.

The more flexible regulation of foreign investments, combined with the rapidly growing demand for resources such as gold, coal, and biofuels since the late 1990s, provided a strong impetus to the opening up of new resource frontiers in the outer islands of the archipelago. It became a golden age for the mining sector in Indonesia. However, as with forestry regulation, the decentralization measures created significant confusion over whether national or local authorities were supposed to grant and supervise mining rights in a particular region.<sup>35</sup> Institutional ambiguity led to overlapping claims among the central, regional, and local governments. This process of simultaneous overlapping and competing claims, laws, and actors, ranging from the indigenous to the national and sometimes supra-national levels, is indeed a major difference between traditional and new frontiers.

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<sup>28</sup>Obidzinski and Kusters 2015.

<sup>29</sup>Casson and Obidzinski 2002; Tacconi et al. 2004.

<sup>30</sup>Casson 2001; Khan 2001; McCarthy 2002; Smith et al. 2003.

<sup>31</sup>Tsing 2008, 156.

<sup>32</sup>See, for example, Bakker 2009.

<sup>33</sup>Schulte Nordholt and Klinken 2007, 19. See also Aspinall and Klinken 2011 regarding the State and illegality in Indonesia.

<sup>34</sup>Aspinall 2013.

<sup>35</sup>Spiegel 2011.

In addition, this ambiguity created new opportunities for plantation companies and investors. For example, in the district of Kutai Kartanegara (East Kalimantan), a large plot of land was sold to a palm oil company by Bugis migrants, who had occupied the land since the 1980s. Originally, the land had belonged to the Kutai Kingdom but the central government had claimed it as state forest in the 1970s. The Kutai Sultan, who still claimed this land, asked Dayaks for help on the basis that it was still their hunting ground. This led to a violent conflict involving the Kutai Kingdom, state authorities, Dayaks, and Bugis.

### ***A transnational turn in agricultural production***

As Lorenzo Cotula notes: “the borderline between food and fuel is blurred, as the same crop may be used for both or the same plantation may involve multiple crops, and as investment plans may evolve over project duration to respond to changing international prices and other incentives.”<sup>36</sup> This is especially true in the palm oil industry. Oil palm plantations and a palm oil industry were already present in Indonesia as far back as the early twentieth century. However, it is only recently that palm oil has become a key industry in Indonesia.<sup>37</sup> The industry has also become deeply embedded in a long international supply and demand chain, resulting in rapid expansion and deep transformations.<sup>38</sup>

Indonesia is currently the world’s largest producer of palm oil, with exports worth USD 18.6 billion in 2015.<sup>39</sup> Between 2000 and 2016, the area dedicated to oil palm plantations grew from four million to eight million hectares, and the government has set a production target of forty million tons of crude palm oil by 2020.<sup>40</sup> Permits have already been granted for a further 26.7 million hectares of oil palm plantations, an area roughly the size of mainland Italy.

Malaysian, Singaporean, and U.S. investors are involved in over sixty percent of the Indonesian palm oil industry.<sup>41</sup> According to 2009 estimates, more than fifty Malaysian companies controlled a significant share of the sector, with an especially strong concentration on Kalimantan. These companies entered Indonesia either indirectly through the acquisition of Indonesian plantation companies or, more recently, directly by acquiring concessions from local or regional governments. By 2013, the industry was dominated by more than thirty big groups.<sup>42</sup> Singapore also plays a significant role by providing funds for the expansion of the oil palm industry in Indonesia through various international banks.<sup>43</sup> Several plantation-based companies have turned to Singapore to raise capital through public offerings and listings on the Singapore stock exchange.

Investment in oil palm expansion is subject to national laws and regulations. The release of forestland for oil palm use requires a review by and the explicit approval of the National Ministry of Environment and Forestry. However, where national stipulations have limited further expansion, local governments have facilitated the expansion of oil

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<sup>36</sup>Cotula 2012, 663.

<sup>37</sup>Jiwan 2013, 51.

<sup>38</sup>Pye 2013a, 7.

<sup>39</sup>See <http://www.indonesia-investments.com/nl/business/grondstoffen/palm-olie/item166>.

<sup>40</sup>Krisnamurti 2009.

<sup>41</sup>Jiwan 2013, 52.

<sup>42</sup>Jiwan 2013.

<sup>43</sup>Hai 2013, 33.



palm plantations by issuing their own permits based on older national or recent regional legislation. In Kalimantan, for example, local governments have issued oil palm concessions for millions of hectares of forest and allowed many companies to proceed with land clearing. Although the price for raw palm oil is officially set in Jakarta, in practice, the actual price is negotiated at the provincial and district levels between companies and officials. During our fieldwork in 2015, a sixty-year-old palm oil smallholder in Sanggau, West Kalimantan, explained the process:

The palm oil company has a monopoly on the processing of oil palm as it is the only one in the region. The company delivers pesticides and fertilizer and decides when we should harvest. We need to use fertilizer and pesticides otherwise the trees become only half the size which also has consequences for the size of the fruits that bear oil palm. The price for the raw oil palm is set by the company in consultation with the officials in the district office every month. When the price of raw oil palm is high, the price that we need to pay for the fertilizer and pesticide will increase, so the company is still making the same amount of money.

### ***New environmental governance regimes***

When the Indonesian Government announced, in May, 2005 plans to develop 1.8 million hectares of oil palm lands along the Indonesia–Malaysia border in Kalimantan, the Chinese government and various companies started to show an interest in producing palm oil in Indonesia. This “Kalimantan Border Oil Palm Mega Project” includes parts of three national parks and, as such, is clearly incompatible with the “Heart of Borneo” rainforest protection project. As Oetami Dewi commented, “The ensuing controversy around both projects represents the dichotomy between ‘development’ and ‘conservation’ in its purest form.”<sup>44</sup> The Indonesian government, and particularly the Ministry of Agriculture, wants to expand palm oil production to attract foreign investment, raise export revenue, and improve the living conditions of people in the area. Conversely, the Heart of Borneo consortium wants to protect the remaining rainforest in order to safeguard biodiversity, genetic resources, and the hydrology of the island, and to enable carbon storage.

In 2011, Indonesia announced a two-year moratorium on new business concessions in primary forest and peat land to reduce its greenhouse emissions. This moratorium has been extended twice so far. In April 2016, an additional moratorium on new oil palm concessions was announced, although still without an implementation date.<sup>45</sup>

New environmental governance regimes also include the REDD+ scheme, which is meant to facilitate the mobilization of massive financial resources for reducing the emission of greenhouse gases from land-use changes in the tropical forests and wetlands of Indonesia. The Norwegian government, one of Indonesia’s largest donors, agreed to provide USD one billion, provided certain conditions were met, from 2011 onwards in Indonesia and Brazil to purchase new concessions for converting forests and peat lands into full-scale provincial-level REDD+ pilot projects. These promised REDD+ revenues led to considerable practical issues regarding implementation as well as competition over the expected financial benefits.<sup>46</sup> Furthermore, they exacerbated existing conflicts

<sup>44</sup>Dewi 2013, 165.

<sup>45</sup>See, for example, Munthe 2016.

<sup>46</sup>So far, only USD\$ fifty million of the results-based Norwegian funding for the Central Kalimantan-based program has been handed over, *Jakarta Globe*, April 24, 2016. See also Bakker and Fristikawati 2014.

between stakeholders over land rights and their sources (custom versus state), procedural and equity issues related to the distribution of compensation, moral and cultural struggles related to the question of whether ecosystem services should be commoditized, and the local interpretation of REDD+ by various actors.<sup>47</sup>

### ***Obfuscation of the local and the national, state and non-state actors***

The voices and wishes of members of local communities are missing in the plans of developers and conservationists, a recurring pattern in frontier areas. There is a tendency to forget that the areas to be developed or protected are not empty, and to turn a blind eye toward incompatible worldviews in human–nature relationships. Yet, it is now widely recognized that the clearing of so-called empty lands for oil palm plantations, in Indonesia and elsewhere, leads to much unrest and tension,<sup>48</sup> and that indigenous people living in and from these forests often combine complex agro-forestry systems with spiritual animist relationships with specific forests or parts of the landscape.<sup>49</sup> Another recurring pattern in frontier areas is that large-scale land-clearing processes go hand in hand with a large-scale influx of migrants.<sup>50</sup> In the oil palm plantations on Kalimantan, these migrants mostly are from Java and Madura. The emergence of resistance by indigenous people and other local communities against these new arrivals since 1998 is another recurring pattern in Indonesian frontier regions.

A new feature is that such resistance by indigenous and local groups is nowadays backed by family members living in Jakarta or in regional capitals such as Surabaya, Medan, Makassar, and Balikpapan. Also new is that outside financiers and firms increasingly outsource or subcontract parts of their operations to local strongmen in order to “smoothen” their operations and avoid the risks and hassle involved in running a business under unpredictable conditions.<sup>51</sup> These local strongmen or “bosses” facilitate land acquisition, finesse regulatory issues, and emasculate the opposition.

Such non-state power holders have become increasingly influential and also regularly take the side of the population against developers and companies. Alongside the national and regional governments, the police and the military, local vigilante mass organizations (*organisasi kemasyarakatan* or *ormas*) have become key players by regulating access to and control over natural resources in many of the resource-rich regions of Indonesia.<sup>52</sup> These organizations set themselves up as brokers and enforcers, represent specific interests such as the local population or investors, and are capable and willing to use violence. They position themselves as NGOs, and refer to national laws as well as to public support to legitimize their activities, albeit with the threat to use violence as extra leverage, if necessary. This is illustrated by one of our interviewees during a short fieldwork trip in East Kalimantan in 2014:

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<sup>47</sup>Medrilzam and Herbohn 2011.

<sup>48</sup>The NGO Sawit Watch documented over 500 ongoing conflicts in the palm oil sector in 2008 (Pye 2013b, 183).

<sup>49</sup>Pye 2013b, 182.

<sup>50</sup>Rudel and Roper 1997.

<sup>51</sup>See also Aspinall and Klinken 2011; McCarthy 2007.

<sup>52</sup>Bakker 2015.

A Dayak man who arrived from the hinterland to the city of Samarinda in East Kalimantan in 2007 joined an *ormas* as he could not find any other way to make an income. This *ormas* was fighting with a mining company over land just to the north of the city. The *ormas* managed to mobilize about 10,000 people who were protesting against the company and claiming land that was still under concession but no longer used by the company. After the company officially transferred the land to the local government, the *ormas* claimed the land and sold it to the local population for about *rupiah* 100,000–150,000 per *verkaveling* (10 × 12 meters). In 2014, when the government was planning to build a highway on the land, its status was still unclear and hundreds of people had already built houses on the small plots and planted fruit and rubber trees.

The interviewee, who is living there with his Torajan wife and two children, is not planning to leave. He claimed that the land had been owned by his Dayak ancestors and, therefore, he still has the right to use it.

### **Arrival of new (international) actors and coalitions of actors**

The processes outlined above have intensified and spread natural resource exploitation in Indonesia and have paved the way for forms of frontierism that, in more than one respect, can be called new. Some of the major players in contemporary advanced capitalism, for example, giant multinationals such as Unilever, large NGOs such as WWF, banks, and hedge funds including Merricks and new powerful economies like China, have become active in the resource frontiers of Indonesia, creating new-style frontiers given the nature of the actors involved and the magnitude and diversity of the stakes. These stakes touch upon many issues related to production, consumption, and investment, but also raise questions concerning climate change, biodiversity, equity, and distributive justice. At stake are the economic, ecological, social, cultural, and political benefits and costs of resource mining and of large-scale land reclamation and acquisition in peripheral regions. The new frontiers are testing grounds for new ideas, such as whether nature offsetting<sup>53</sup> is an acceptable and appropriate strategy for protecting biodiversity in nature-rich areas or whether large-scale financial investment in land and nature in peripheral regions constitutes a resilient and sustainable way to diversify investment portfolios, prevent future financial meltdowns, and hedge against inflation.<sup>54</sup> Another idea being investigated is to use forest-rich frontier regions such as Kalimantan for large-scale carbon storage, for instance, through the restoration or protection of peat or forest, to mitigate climate change.<sup>55</sup>

A novel aspect of all these developments is the power and composition of the networks of involved actors, and the nature, scale, and inter-connectedness of their interactions. Here again, it is not so much the presence of these actors, or the nature of the key actors, such as national, regional, and local governments, firms, migrants, indigenous people, and local communities, which is new. The newness is to be found in their inter-connection, the characteristics and hybridity of their networks, and the scale of their interactions. Moreover, there is a growing involvement of new actors such as China and India, both directly and indirectly, through brokers or the market. These

<sup>53</sup>This is the idea that you are allowed to use nature in one place if you create at least the same amount of the same type of nature elsewhere.

<sup>54</sup>Anseeuw, Ducastel, and Gabas 2011; Chen et al. 2014.

<sup>55</sup>Adams 2010; MacDonald 2010; Sullivan 2013.

newcomers often cooperate closely with national or local governments as well as local business and other elites in host countries.<sup>56</sup> Local elites also take up a new role, initiating intensive collaborations with all kinds of international actors, including firms, financial institutions, and governments. They use their influence in national governmental bodies to gain control over natural resources or, conversely, use their control over resources to grab state power or develop new forms of patronage, sometimes with global ramifications.<sup>57</sup>

### ***Economization and monetarization of ecological practices and discourses***

The impact of introducing private property regimes, with all their accompanying complications, was already an aspect of earlier frontiers. What is new is the rapid introduction of large-scale private property regimes grounded in international law, forged in the headquarters of multinationals or in the chancelleries of foreign capitals.<sup>58</sup>

A good example is the idea that common property resources such as ground water can be patented and, as a consequence, privatized and confiscated by firms that are not even located in the countries in question. Formerly, much of the land in Indonesia was state-owned, especially in frontier regions. This is a legacy of the Dutch colonial era, when law tended to treat non-cultivated land as empty, that is, as free to exploit. Yet, as Alice Kelly and Nancy Lee Peluso observe:

Today's frontiers of capitalism are not remote or "newly discovered" spaces. Instead, these frontiers are new commodity forms within the confines of already formalized state lands. [...] State lands become frontiers when changes in broader economy and logics of economic development reconstitute the relationships between capital, society, and state authorities.<sup>59</sup>

The apparently simple act of buying land or access to land leads to far-reaching social, cultural, political, ecological, and economic implications and complications. It initiates a sequence of simultaneous and interrelated changes in many domains, from the introduction of new definitions of use rights and property, territory and the delineation of that territory, community and collective action, human–human interaction and social structures, and human–nature interactions, to new rules for political interaction with the state, a new division of labor, and the introduction of the economy as a separate and dominant domain.<sup>60</sup>

### **Broadening the focus**

The newness in our idea of frontiers is that it questions existing frontiers, both physical and non-physical, and points the way toward new types of delineation. In what follows, we broaden the focus by drawing on three perspectives: (1) hybridity as the new frontier; (2) interstitial space – the space in-between; and (3) beyond the nature–culture divide.

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<sup>56</sup>Cotula 2012.

<sup>57</sup>Cotula 2012.

<sup>58</sup>See also Kelly and Peluso 2015.

<sup>59</sup>Kelly and Peluso 2015, 475.

<sup>60</sup>Richardson and Weszkalnys 2014.

### ***Hybridity as the new frontier***

The original frontier perspective was about rolling out civilization and modern governmental control over blank spaces on the map, an uncivilized empty wilderness. Within this perspective, there is a strong divide between civilized and uncivilized, utility and uselessness, efficiency and inefficiency, and law and lawlessness. There is a clear boundary (or frontier) and the goal is to move the boundary toward efficient usage, civilization, utility, law, and state control. The regions that border this boundary form a twilight zone where everything is less clear-cut. However, the lack of clarity in frontier regions is stronger, as it is in these supposedly wild regions that the boundary with civilization, and everything that comes along with this, is threatened.

Bruno Latour used the idea of hybridization to show that modernity's attempt to create clarity by drawing sharp boundaries culminates in the emergence of even more twilight zones, different shades of gray, or hybrids.<sup>61</sup> Latour regards the "proliferation of hybrids" – of quasi-objects and the multiplication of intermediaries between humans and nonhumans – as emblematic of the modern world.<sup>62</sup> The irony of modernity, he notes, is that we are so often seeking to continuously advance and reify the definitions and categories of the objects and concepts around us that, in seeking to increasingly become modern, we are in fact moving further and further away from a cohesive understanding of the world.

The idea of new frontiers takes account of this hybridization and its consequences by considering the consequences on actors, acts, motivations, practices, rules, institutions, spaces, and time, including the effects of scale. That is, the boundaries between, for example, actors or between the local and the supra-local have become fluid and complex, and difficult to unambiguously interpret.

### ***New frontiers as an interstitial space***

The notion of interstitial space – literally the space in-between, that which is located between the two spaces and yet not to be conceptualized – is closely related to hybridization. It denotes the gap between two given spaces, while the concept of hybridization challenges the existence of two apparently given and sharply demarcated and distinguished spaces. From the perspective of an interstitial space, there would be two spaces (physical or otherwise) that are not completely and seamlessly woven through a clearly defined border, such as in the example about the gray zone where smuggling occurs.<sup>63</sup> From a hybridity perspective, the concept of interstitial space can be used to show that everything has become fluid.<sup>64</sup> This requires rethinking what these spaces actually are, what the practices are that take place in these spaces, and who the actors are in these spaces that negotiate their boundaries.

The interstitial spaces in the Kalimantan frontiers are not just mapped and shaped by the state, business, and civil society. Other actors include local elites, vigilantes, indigenous

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<sup>61</sup>Latour 1993.

<sup>62</sup>Latour 1993, 131–133.

<sup>63</sup>This relates to Bhabha's idea of hybridity which he linked to people living in a post-colonial contra-modernity reality which captures "the hybrid and syncretic perspectives [ . . . ] of those half-inside and half-outside of modernity, a conscious mixing of traditions and crossing of boundaries." See Bhabha 1994.

<sup>64</sup>Latour 1993, 2004.

leaders and other power-brokers, the military and the police, local communities, immigrants, and investors. The larger networks referred to above include fluid clusters of businessmen, politicians, officials, and local people co-opted by firms or the government. For example, one actor can provide licenses to palm oil companies in his role as a government official and, at the same time, protest against the arrival of new plantations with his own community members.

This interstitial process, with its scale, complexity, and fluidity, is crucial in understanding what happens in frontier spaces. It requires the identification of actors and their agency if one is to develop a perspective that views new frontiers as spaces of action that are not confined to the geographical locations where the impact is realized. It is in this space in-between that people and organizations meet, interact, generate meaning and purposes, and define resources. These actor networks are shifting, tangled, and dynamic, connecting rural to rural, rural to urban, and nature with culture and economy, although not always to the same intensity.<sup>65</sup> Contemporary interstitial frontier spaces are areas where natural resources, boundaries, and identities are reshaped, thereby questioning established categorizations of culture and identity.<sup>66</sup>

This cultural, social, and political hybridity and fluidity easily generate conflicts and violence, the more so because there are no clear rules for conflict resolution or mitigation. The state is but one of many competing actors.<sup>67</sup> It is not so much that legal, political, and historical state institutions are absent. It is more that existing rules and institutions are in flux and contested. This is especially crucial in the new Indonesian frontiers of Kalimantan.

### ***Beyond the nature–culture divide***

Most approaches to studying resource exploitation still use a strictly physical and functional definition of what natural resources are, and hence, the particular types of capacities and use.<sup>68</sup> Nature is seen as a pre-given entity or a system or composite of systems, which is supposed to provide services to humankind.

However, there is a large body of work showing that nature and natural resources perform roles that go beyond delivering services, and certainly beyond only material services.<sup>69</sup> These accounts emphasize “the interrelation between the production of resources as valuable objects and the production of human subjectivities and, indeed, entire cosmologies.”<sup>70</sup>

The discussion needs to move beyond the functional approach, that is, the question of what services nature can offer to us or what services we can offer to nature.<sup>71</sup> Nature is not given. Nor are the ways we interact with nature or the ways we perceive and value that interaction and ourselves in that interaction.<sup>72</sup> It is often in frontier areas that the artificial

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<sup>65</sup>Bhabha 1994; Sofield 2006; Naum 2010.

<sup>66</sup>Meredith 1998; Sofield 2006.

<sup>67</sup>Peltier 2009.

<sup>68</sup>Baviskar 2008; Richardson and Weszkalnys 2014.

<sup>69</sup>See, for example, Braun and Castree 1999; Bridge 2001, 2009; Ferry and Limbert 2008; Gilberthorpe 2007; Richardson and Weszkalnys 2014; Tinker Salas 2009; Tsing 2005; Jong et al. 2015; Knippenberg 2015.

<sup>70</sup>Richardson and Weszkalnys 2014, 11.

<sup>71</sup>See, for example, Braun 2002.

<sup>72</sup>Ingold 2000.

character of the culture–nature divide becomes evident. It is in, or because of, the contemporary frontier areas that it becomes clear that the existing distinctions between nature and culture no longer hold. Our societal systems are conditioned by and dependent on natural processes, just as natural systems are conditioned and often dependent on human interactions and other societal processes. Increasingly, researchers talk about socio-ecological systems, to indicate that we should, at least theoretically, merge culture and nature to develop a perspective for understanding our contemporary world. A good illustration is the climate change debate. It is now recognized that all human civilizations have developed in a period when the climate, because of its stable temperatures, was extremely favorable for their development. That period is often claimed to be over, largely because of human actions and interactions. The resulting climate changes will deeply influence the capacity to uphold and shape our societies. This insight draws new borders, and is visible in and because of processes taking place in contemporary extraction frontier areas.

Thinking of resources as a social category requires us to take account of the dynamic quality of those resources. What qualifies as a resource at a certain time and place varies<sup>73</sup> and depends on the existing social and culture–nature relationship, and the interests, beliefs, and practices of involved actors.

Images and ideas of nature and natural resources create reality. However, most descriptions of resource frontiers still (1) see the existence and nature of resources as given, (2) label and count them, and (3) describe them in terms of ownership.<sup>74</sup> Anna Tsing depicts a frontier as an edge of space and time: a zone of the not yet – not yet mapped, not yet regulated; in fact, a zone of un-mapping with regard to the already present outlooks and practices:

Frontiers are not just discovered at the edge; they are projects in making geographical and temporal experience. Frontiers make wildness, entangling visions and vines and violence; their wildness is both material and imaginative. This wildness reaches backward as well as forward in time, bringing old forms of savagery to life in the contemporary landscape.<sup>75</sup>

## Conclusion

In this article, we propose enriching and broadening the perspective on frontiers, and especially with regard to the Indonesian situation, in four ways. First, the role of space has changed. In traditional frontier theory, space is localized and straightforward. The frontier demarcates the boundary between the civilized and the empty, underused, or under-cultivated. However, in the contemporary frontier zones of Indonesian Kalimantan, space and control have become far more hybrid. They are spaces within an existing nation state, without clear physical or even defined boundaries, where central state control, institutions, and social networks have declined or at least become less solid.

Second, the role of time differs. Processes that took decades to unfold in the era of the traditional frontier now come to fruition in just a few years. Moreover, time and space have merged. Processes originating thousands of miles away, such as the desire to

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<sup>73</sup>Bridge 2009, 1219–1221.

<sup>74</sup>Tsing 2005, 29.

<sup>75</sup>Tsing 2005, 28–29.

protect biodiversity, store carbon, or reduce the amount of animal fat in processed food in developed countries, trigger rapid and large-scale transformations in Kalimantan.

Third, the actors differ. This is strongly linked to the upscaling of space and time described above. Growing numbers of increasingly differentiated actors as diverse as WWF officials, CEOs of multinational firms, investors, state officials, and local community leaders interact in ever more complicated ways in new frontier areas.

Fourth, social and socio-ecological relations differ. Contemporary frontier areas on Kalimantan have become zones of encounters between competing social-cultural, socio-economic, and economic-ecological practices, discourses, and traditions. They involve people living in frontier areas as well as a growing variety of outsiders such as bankers, financiers, transnational firms and NGOs, civil servants, and sometimes even foreign governments. These actors have different perspectives and goals that shape, define, organize, structure, and delineate their mutual relationships, and their relation with the frontier area.

No longer is this an issue of a clash between “civilization” and “backwardness” or between opposing perspectives on what civilization, progress, advancement, or backwardness mean or should mean. New frontiers are about the limits – the frontiers – of a process that has been ongoing since nineteenth-century colonialism. The “new” in our broadened perspective on frontiers is about the limits to the commodification, privatization, monetization, and marketization of human discourses and practices, and all human-nature interactions (land, labor, nature, valuing).

The developments that have taken place in Indonesia, notably since the late 1990s, make Indonesia, and especially Kalimantan, a particularly intriguing case for applying, testing, and further constructing an enriched frontier concept. As such, this article can be seen both as an effort to enrich the theoretical umbrella for frontier research, and as a stepping-stone in an ongoing program to develop a framework for analyzing and understanding processes in these new frontiers, not only in Kalimantan but also in the rest of Indonesia and beyond.

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## Notes on contributors

**Edwin de Jong** is an Assistant Professor of Anthropology and Development Studies at Radboud University Nijmegen, the Netherlands. His research focuses on nature and natural resource politics, property and access, sustainability and livelihoods. He heads the interdisciplinary research program “New Indonesian Frontiers: Stuck between market, state, civil society and the contest over natural resources.”

**Luuk Knippenberg** is an Assistant Professor at the Institute for Science, Innovation and Society, Faculty of Science, and Department for Anthropology and Development Studies, Faculty of Social Sciences, Radboud University, Nijmegen, The Netherlands. His research focuses on social and political economic aspects of sustainable development, nature and biodiversity and social–ecological transformations.

**Laurens Bakker** is an Assistant Professor of Anthropology at the University of Amsterdam. His research focuses on land law and land conflict as well as on the influence of informal militias. He currently heads a comparative research project on the role of informal security providers in Indonesia, Nigeria, and Kenya.

## References

- Adams, William A. 2010. “Conservation Plc.” *Oryx* 44: 482–484.
- Anseeuw, Ward, Antoine Ducastel, and Jean-Jacques Gabas. 2011. “The End of the African Peasant? From Investment Funds and Finance Value Chains to Peasant Related Questions.” Paper presented at the International Conference on Global Land Grabbing, Brighton, April 6–8.
- Aspinall, Edward. 2013. “A Nation in Fragments.” *Critical Asian Studies* 45 (1): 27–54.
- Aspinall, Edward, and Gerry van Klinken. 2011. *The State and Illegality in Indonesia*. Leiden: KITLV Press.
- Bach, Daniel C. 2013. “Africa in International Relations: The Frontiers as Concept and Metaphor.” *South African Journal of International Affairs* 20 (1): 1–22.
- Bakker, Laurens. 2009. “Who Owns the Land? Looking for Law and Power in East Kalimantan.” Ph.D thesis, Faculty of Social Sciences and Faculty of Law, Radboud University Nijmegen.
- Bakker, Laurens. 2015. “Illegality for the General Good? Vigilantism and Social Responsibility in Contemporary Indonesia.” *Critique of Anthropology* 35 (1): 78–93.
- Bakker, Laurens, and Yanti Fristikawati. 2014. *Permasalahan Kehutanan di Indonesia dan Kaitannya Perubahan dengan Iklim Serta REDD+*. Yogyakarta: Penerbit Pohon Cahaya.
- Barney, Keith. 2009. “Laos and the Making of a ‘Relational’ Resource Frontier.” *The Geographical Journal* 175 (2): 146–159.
- Baviskar, Amita. 2008. “Introduction.” In *Contested Grounds. Essays on Nature, Culture and Power*, edited by A. Baviskar, 1–13. New Delhi: Oxford University Press.
- Bhabha, Homi K. 1994. *The Location of Culture*. London: Routledge.
- Billington, Ray Allen. 1971. *The American Frontier Thesis*. Washington, DC: American Historical Association.
- Braun, Bruce P. 2002. *The Intemperate Rainforest. Nature, Culture, and Power on Canada’s West Coast*. Minneapolis: University of Minnesota Press.
- Braun, Bruce P., and Noel Castree. 1999. *Remaking Reality: Nature at the Millennium*. London: Routledge.
- Bridge, Gavin. 2001. “Resource Triumphalism: Post-industrial Narratives of Primary Commodity Production.” *Environment and Planning* 33 (12): 2149–2173.
- Bridge, Gavin. 2009. “Material Worlds: Natural Resources, Resource Geography and the Material Economy.” *Geography Compass* 3 (3): 1217–1244.
- Casson, Anne. 2001. *Illegal Tropical Timber Trade in Central Kalimantan*. Resource Management in Asia-Pacific Occasional Paper. Canberra: Research School of Pacific and Asian Studies, Australian National University.
- Casson, Anne, and Krystof Obidzinski. 2002. “From New Order to Regional Autonomy: Shifting Dynamics of ‘Illegal’ Logging in Kalimantan, Indonesia.” *World Development* 30 (12): 2133–2151.

- Chen, Songjiao, William W. Wilson, Ryan A. Larsen, and Bruce L. Dahl. 2014. "Investing in Agriculture as an Asset Class." *Agribusiness* 1: 1–18.
- Cotula, Lorenzo. 2012. "The International Political Economy of the Global Land Rush: A Critical Appraisal of Trends, Scale, Geography and Drivers." *Journal of Peasant Studies* 39 (3–4): 649–680.
- Deiningner, Klaus, Derek Byerlee, Jonathan Lindsay, Andrew Norton, Harris Selod, and Mercedes Stickler. 2011. *Rising Global Interest in Farmland: Can it Yield Sustainable and Equitable Benefits?* Washington, DC: World Bank.
- De Konink, Rodolphe. 2006. "On the Geopolitics of Land Colonization: Order and Disorder on the Frontiers of Vietnam and Indonesia." *Moussons* 9–10: 33–59.
- Dewi, Oetami. 2013. "Reconciling Development, Conservation, and Social Justice in West Kalimantan." In *The Palm Oil Controversy in Southeast Asia: A Transnational Perspective*, edited by O. Pye and J. Bhattacharya, 164–179. Singapore: ISEAS Publishing.
- Eilenberg, Michael. 2011. "Flouting the Law: Vigilante Justice and Regional Autonomy on the Indonesian Border." *Austrian Journal of South-East Asian Studies* 4 (2): 237–253.
- Elden, Stuart. 2010. "Land, Terrain, Territory." *Progress in Human Geography* 34 (6): 799–817.
- Fassin, Didier. 2011. "Policing Borders, Producing Boundaries: The Governmentality of Immigration in Dark Times." *The Annual Review of Anthropology* 40: 213–226.
- Ferry, Elizabeth Emma, and Mandana E. Limbert. 2008. *Timely Assets: The Politics of Resources and Their Temporalities*. Santa Fe, NM: School for Advanced Research Press.
- Fox, Jefferson, and Arun Swamy. 2008. "Introduction: Natural Resources and Ethnic Conflicts in Asia Pacific." *Asia Pacific Viewpoint* 49: 1–11.
- Friedmann, John. 1996. "Borders, Margins and Frontiers: Myth and Metaphor." In *Frontiers in Regional Development*, edited by Yehuda Gradus and Harvey Lithwick, 1–20. Lanham, MD: Rowland and Littlefield.
- Gaubatz, Piper Rae. 1996. *Beyond the Wall: Urban Form and Transformation on the Chinese Frontiers*. Stanford, CA: Stanford University Press.
- Geiger, Daniel. 2009. "Turner in the Tropics: The Frontier Concept Revisited." PhD thesis, University of Luzern.
- German, Laura, Alois Mandondo, Fiona Paumgarten, and Jacob Mwitwa. 2014. "Shifting Rights, Property and Authority in the Forest Frontier: Stakes' for Local Land Users and Citizens." *Journal of Peasant Studies* 41 (1): 51–78.
- Gilberthorpe, Emma. 2007. "Fasu Solidarity: A Case Study of Kin Networks, Land Tenure, and Oil Extraction in Kutubu, Papua New Guinea." *American Anthropologist* 109 (1): 101–112.
- Hai, Teoh Cheng. 2013. "Malaysian Corporations as Strategic Players in Southeast Asia's Palm Oil Industry." In *The Palm Oil Controversy in Southeast Asia: A Transnational Perspective*, edited by Oliver Pye and Jayati Bhattacharya, 19–48. Singapore: ISEAS Publishing.
- Hall, Derek, Philip Hirsch, and Tania Murray Li. 2011. *Powers of Exclusion. Land Dilemmas in Southeast Asia*. Singapore: NUS Press.
- Hoefle, Scott William. 2006. "Twisting the Knife: Frontier Violence in the Central Amazon of Brazil." *Journal of Peasant Studies* 33 (3): 445–478.
- Ingold, Tim. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling & Skill*. New York: Routledge.
- Ingram, James C. 1971. *Economic Change in Thailand, 1850–1970*. Stanford, CA: Stanford University Press.
- Ishikawa, Noboru. 2010. *Between Frontiers: Nation and Identity in a Southeast Asian Borderland*. Singapore/Copenhagen: NUS Press/NIAS Press.
- Jepson, Wendy. 2006. "Producing a Modern Agricultural Frontier: Firms and Cooperatives in Eastern Mato Grosso, Brazil." *Economic Geography* 82: 289–316.
- Jiwan, Norman. 2013. "The Political Ecology of the Indonesian Palm Oil Industry." In *The Palm Oil Controversy in Southeast Asia: A Transnational Perspective*, edited by Oliver Pye and Jayati Bhattacharya, 48–76. Singapore: ISEAS Publishing.
- Jong, Edwin B.P. de, Ad M.J. Ragas, Gerben Nooteboom, and M. Mursidi. 2015. "Changing Water Quality in the Middle Mahakam Lakes: Water Quality Trends in a Context of Rapid

- Deforestation, Mining and Palm Oil Plantation Development in Indonesia' Middle Mahakam Wetlands." *Wetlands* 35 (4): 733–744.
- Kelly, Alice B., and Nancy Lee Peluso. 2015. "Frontiers of Commodification: State Lands and Their Formalization." *Society and Natural Resources* 28: 473–495.
- Khan, Aziz. 2001. "Preliminary Review on Illegal Logging in Kalimantan." Paper presented at the Resource Management in Asia-Pacific Conference on Resource Tenure, Forest Management and Conflict Resolution: Perspectives from Borneo and New Guinea, Canberra, Australian National University, April 9–11.
- Knippenberg, Luuk. 2015. "A New Theory of Motivation to Act for Nature: An Interdisciplinary Perspective." Accessed May 15, 2017. [www.biomot.eu](http://www.biomot.eu).
- Kopytoff, Igor, ed. 1987. *The African Frontier: The Reproduction of Traditional African Societies*. Bloomington: Indiana University Press.
- Krisnamurti, Bayu. 2009. "Government Strategic Policies on Sustainable Palm Oil Development." Paper presented at the Indonesian Palm Oil Conference and Price Outlook 2009, Bali International Convention Center, The Westin Resort, Denpasar, Bali, December 3–4.
- Latour, Bruno. 1993. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.
- Latour, Bruno. 2004. "Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern." *Critical Inquiry* 30: 225–248.
- Le Meur, Pierre-Yves. 2006. "State Making and the Politics of the Frontier in Central Benin." *Development and Change* 37 (4): 871–900.
- Li, Tania Murray. 2014. *Land's End: Capitalist Relations on an Indigenous Frontier*. Durham, NC: Duke University Press.
- Little, Paul E. 2001. *Amazonia: Territorial Struggles on Perennial Frontiers*. Baltimore, MD: Johns Hopkins University Press.
- MacDonald, Kenneth Iain. 2010. "The Devil is in the (Bio)diversity: Private Sector 'Engagement' and the Restructuring of Biodiversity Conservation." *Antipode* 42 (3): 513–550.
- McCarthy, John F. 2002. "Power and Interest on Sumatra's Rain Forest Frontier: Clientelist Coalitions, Illegal Logging and Conservation in the Alas Valley." *Journal of Southeast Asian Studies* 33 (1): 77–106.
- McCarthy, John F. 2007. "Sold Down the River; Renegotiating Public Power over Nature in Central Kalimantan." In *Renegotiating Boundaries: Local Politics in Post-Suharto Indonesia*, edited by Henk Schulte Nordholt and Gerry Van Klinken, 151–177. Leiden: KITLV Press.
- McCarthy, John F., Piers Gillespie, and Zahari Zen. 2011. "Swimming Upstream: Local Indonesian Production Networks in 'Globalized' Palm Oil Production." *World Development* 40 (3): 555–569.
- Medrilzam, Paul Dargusch, and John Herbohn. 2011. "Will Indonesia Be Successful in Reducing Its Green House Gas Emission with REDD+? The Threat of Organizational Fragmentation." *Annals of Tropical Research* 33 (1): 67–85.
- Meredith, Paul. 1998. "Hybridity in the Third Space: Rethinking Bi-Cultural Politics in Aotearoa/New Zealand." Paper presented on Te Oru Ranguhau Maori Research and Development Conference, Massey University, July 7–9.
- Munthe, Bernadette Christina. 2016. "UPDATE 1-Indonesia to Issue a Moratorium on New Palm Oil Concessions." *Reuters*, April 14. Accessed November 26, 2016. <http://www.reuters.com/article/indonesia-palmoil-moratorium-idUSL3N17H2PB>.
- Naum, Magdalena. 2010. "Re-emerging Frontiers: Postcolonial Theory and Historical Archaeology of the Borderlands." *Journal of Archaeological Method Theory* 17: 101–131.
- Nooteboom, Gerben, and Edwin B. P. de Jong. 2010. "Against 'Green Development Fantasies': Resource Degradation and the Lack of Community Resistance in the Middle Mahakam Wetlands, East Kalimantan, Indonesia." *Asian Journal of Social Science* 38 (2): 258–279.
- Obidzinski, Krystof, and Koen Kusters. 2015. "Formalizing the Logging Sector in Indonesia: Historical Dynamics and Lessons for Current Policy Initiatives." *Society and Natural Resources* 28: 530–542.
- Osborne, Tracey Muttoo. 2011. "Carbon Forestry and Agrarian Change: Access and Land Control in a Mexican Rainforest." *Journal of Peasant Studies* 38 (4): 859–883.

- Patlis, Jason M. 2008. "What Protects the Protected Areas? Decentralization in Indonesia, the Challenges Facing its Terrestrial and Marine National Parks and the Rise of Regional Protected Areas." In *Biodiversity and Human Livelihoods in Protected Areas: Case Studies from the Malay Archipelago*, edited by Navjot S. Sodhi, Greg Acciaioli, Maribeth Erb, and Alan Khee-Jin Tan, 405–429. New York: Cambridge University Press.
- Peluso, Nancy Lee, and Christian Lund. 2011. "New Frontiers of Land Control: Introduction." *Journal of Peasant Studies* 38 (4): 667–681.
- Peltier, Jean-Philippe N. 2009. "American Foreign Policy Interests: The Journal of the National Committee on American Foreign Policy." *American Foreign Policy Interests* 31: 261–270.
- Persoon, Gerard A. 2007. "The Heart of Borneo: Transboundary Conservation and its Challenges." In *Options for Biodiversity Conservation and Sustainable Use in Lowland Forests of Southeast Borneo. Proceedings of a Workshop Organised on 19 May 2006 in Leiden, The Netherlands*, edited by Hans H. de Iongh, Gerard A. Persoon, and Wawan Kustiawan, 13–43. Leiden: Institute of Environmental Sciences.
- Pye, Oliver. 2013a. "Introduction." In *The Palm Oil Controversy in Southeast Asia: A Transnational Perspective*, edited by Oliver Pye and Jayati Bhattacharya, 1–19. Singapore: ISEAS Publishing.
- Pye, Oliver. 2013b. "An Analysis of Transnational Environmental Campaigning Around Palm Oil." In *The Palm Oil Controversy in Southeast Asia: A Transnational Perspective*, edited by Oliver Pye and Jayati Bhattacharya, 179–199. Singapore: ISEAS Publishing.
- Richardson, Tanya, and Gisa Weszkalnys. 2014. "Introduction: Resource Materialities." *Anthropological Quarterly* 87 (1): 5–30.
- Rudel, Thomas K., and Jill Roper. 1997. "The Paths to Rain Forest Destruction: Crossnational Patterns of Tropical Deforestation, 1975–1990." *World Development* 25 (1): 53–65.
- Schulte Nordholt, Henk, and Gerry van Klinken. 2007. "Introduction." In *Renegotiating Boundaries: Local Politics in Post-Suharto Indonesia*, edited by H. Schulte Nordholt and G. van Klinken, 1–31. Leiden: KITLV Press.
- Smith, Joyotee, Krystof Obidzinski, Sumirta Subarudi, and Iman Suramenggala. 2003. "Illegal Logging, Collusive Corruption and Fragmented Governments in Kalimantan, Indonesia." *International Forestry Review* 5 (3): 293–302.
- Sofield, Trevor H.B. 2006. "Border Tourism and Border Communities: An Overview." *Tourism Geographies* 8 (2): 102–121.
- Spiegel, Samuel J. 2011. "Governance Institutions, Resource Rights Regimes, and the Informal Mining Sector: Regulatory Complexities in Indonesia." *World Development* 40 (1): 189–205.
- Sullivan, Sian. 2013. "Banking Nature? The Spectacular Financialisation of Environmental Conservation." *Antipode* 45 (1): 198–217.
- Tacconi, Luca, Krystof Obidzinski, Joyotee Smith, Sumirta Subarudi, and Iman Suramenggala. 2004. "Can 'Legalization' of Illegal Forest Activities Reduce Illegal Logging?" *Journal of Sustainable Forestry* 19 (1–3): 137–151.
- Tinker Salas, Miguel. 2009. *The Enduring Legacy: Oil, Culture, and Society in Venezuela*. Durham, NC: Duke University Press.
- Tsing, Anna Lowenhaupt. 2005. *Friction: An Ethnography of Global Connection*. Princeton and Oxford: Princeton University Press.
- Tsing, Anna Lowenhaupt. 2008. "Natural Resources and Capitalist Frontiers." In *Contested Grounds. Essays on Nature, Culture and Power*, edited by Amita Baviskar, 137–158. New Delhi: Oxford University Press.
- Turner, Frederick Jackson. (1893) 1963. *The Significance of the Frontiers in American History*. New York: Frederick Ungar.
- Verbrugge, Boris. 2015. "Undermining the State? Informal Mining and Trajectories of State Formation in Eastern Mindanao, Philippines." *Critical Asian Studies* 47 (2): 177–199.
- Volkman, Toby Alice. 1985. *Feasts of Honor. Rituals and Change in the Toraja Highlands*. Urbana: University of Illinois Press.
- White, Ben, and Anirban Dasgupta. 2010. "Agrofuels Capitalism: A View from Political Economy." *Journal of Peasant Studies* 37 (4): 593–607.