*Paideuma 66:235–251 (2020)*

# FRONTIER-MAKING AND SALVAGE LANDSCAPES IN WEST KALIMANTAN (INDONESIA)

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*ABSTRACT.* In current usage, a frontier is not only a geographical space but an assemblage of knowledge, practices, and objects that manifests itself at different scales. The Indonesian province of West Kalimantan is being transformed by two frontier assemblages, oil-palm cultivation and nature conservation, which aim at scaling up their competing models of land use and territoriality. The question addressed in this article is what relationships, ideas, and practices have produced these oil-palm and conservation frontiers, and what opportunities they leave for local people to defend their land rights and livelihoods. I describe the changing relationships of indigenous groups and recent settlers with state power and argue that both have played a role in opposing frontier capitalism and defending smallholder agriculture. While state power enables specific groups to project the frontier as their future, some people use the technology and knowledge of frontier assemblages to oppose large-scale frontier development and salvage aspects of social time, history and environment in miniature farms and landscapes.

## 1. *Introduction*

A defining feature of frontier-making is that it erases pre-existing social forms and environmental relations. Taking this notion at face value, it implies that the inhabitants of the frontier become frontier agents who either benefit from the open access to land and resources or become part of new, privatised property regimes and territorial orders. In recent frontier studies, this distinction provides a simplistic and ideological picture of the frontier's actual complexity. Frontier space is not defined by a dominant ideological framework and political economy, but by the relations of connection and articulation that link people with practices and identities on diverse scales (Barney 2009:148). The difficulties involved in identifying any stable categories and boundaries of a 'frontier society' forces us to ask what relationships, ideas and practices transform certain places into frontier sites.

In this article, I address this question with reference to the Indonesian province of West Kalimantan, in which the expansion of oil-palm estates is currently the main driver of land-use change. The usual justification for expanding the area of land dedicated to oil palm is that the island of Kalimantan is rich in resources but short of people. While this replicates arguments made in support of other resource booms in the past, the current oil-palm frontier represents a technological and epistemic shift from relatively low-tech resource economies, such as rubber-tapping, logging and mining, to scientifically and bureaucratically standardised industrial agriculture. The prevailing fron-

tier frame has shifted from the extraction of tree crops and other forest resources to the production of a capital-intensive commodity. As I will argue, the new frontier frame that stresses productive land-use as Kalimantan's main development opportunity is linked to the devolution of state authority to Indonesia's regions around 2000. However, this new pattern of centre-periphery relations is not the determining cause of ongoing frontier development. Oil-palm farming transforms the institutional and technological conditions of landholding and market participation. It redefines the hierarchies and political possibilities of those whom the state authorities represent as autochthonous peoples as opposed to immigrants, permanent settlers as opposed to labour migrants, modern as opposed to traditional, and so on. While oil-palm economies produce various social and environmental effects in different places, these effects are more than just an iteration of the patterns and tendencies of the local culture and political economy.

These are the reasons for approaching oil palm as an assemblage, and not merely as just another cash crop with similar consequences for West Kalimantan's political economy as rubber, illipe nut, or some other long-established commodity. A global assemblage is an abstractable, mobile and dynamic apparatus for organising life with unique effects for each site on which it operates (Collier and Ong 2005:4). In spite of the global biological and technological properties of oil-palm cultivation, growers in Indonesia – unlike those in West Africa – are unable to process their oil-palm kernels into a marketable product without becoming the clients of corporate actors. This is partly due to the technological standards and certification procedures that are applied to large-scale production throughout Southeast Asia, and not only to the specific conditions of smallholder cultivation in West Kalimantan. An independent peasant farmer is required to grow the palms from certified seedlings, and the local processing mill requires a seal on each truckload of palm kernels as proof of an unbroken delivery chain from a known farm or estate. This is not the case for rubber, which local farmers can process into a durable good before it is sold to a merchant in a nearby town.

This is why the frontier-making effects of oil-palm expansion in West Kalimantan are different from previous booms in rubber farming. Oil-palm farming erodes the system of tree-tenure, which entitles rubber farmers to a life-long claim to the trees they plant, and replaces it with a mixture of land-lease and property arrangements that work against the reproduction of community-based land rights. However, as I will argue below, the new territoriality builds on the old one, recycling and re-interpreting former understandings of land tenure (Rasmussen and Lund 2018:393). Oil palm does not simply wash away existing relationships: the changes it brings about are also part of a longer historical process.

Oil palm is not the only global assemblage at work in West Kalimantan. In certain areas, nature conservation amounts to a competing frontier frame that also invites people to think about their activities as part of larger-scale developments. As Anna Tsing (2003:5102) has argued, frontiers are driven by different and competing imaginative projects. Tsing's concern, however, is not deciding what frontiers are or are not, but

rather tracing the diversity of ways in which people connect their activities to global processes, a frontier being a useful background for her in observing such connections. Other scholars who seek to define the frontier as an assemblage stress the relationship between frontiers and new forms of territoriality, that is, the classification of particular areas in order to regulate people and resources (Rasmussen and Lund 2018:388). While territoriality always involves the state, these scholars argue that it does not result from state control or commercial expansion in any simple sense (Rasmussen and Lund 2018:393, Cons and Eilenberg 2019:2). Although state control often takes the form of classifying and ordering people in specific politico-economic slots with reference to their racialised and ethnic attributes, these slots also take on new meanings in the context of extractive and productive activities on the frontier (Peluso 2017:840).

Classic frontier studies have emphasised the cultural and politico-economic distinction between colonial settlers and indigenous people as the frontier's defining feature. A historically dynamic perspective on their relationship reveals that the frontier's inequalities of power are not absolute but have many dimensions (Geiger 2008:102), and that local people may sometimes be re-empowered to restore their institutions and agency (Acciaioli and Sabharwal 2017:40). Defrontierisation, or undoing the frontier, implies that local people take control. This, however, assumes a certain stability in the categories of identity that are shaped by frontier-making. In this article, I suggest that the agency of making and unmaking the frontier is indeed something that shifts between the colonisers and the colonised. However, people's awareness of themselves as one or the other depends on the knowledge categories and political positions available to them, even as their ability to defend a specific form of territoriality depends on the prevailing assemblage of technology and landscape.

With these considerations in mind, I will next discuss the frontier-making effects of rubber and oil-palm cultivation in West Kalimantan as a historical process in which the state-centred model of estate agriculture was replaced by industrial agriculture by private corporations after the change of regime in Indonesia in 1998. In the section that follows, I explain why the oil palm economy, unlike rubber farming and logging, has dismantled common property institutions in favour of private land control and territoriality. Finally I discuss the effects of nature conservation – a frontier frame that currently competes with industrial agriculture – on local environmental strategies and perceptions. My overall argument is that the simultaneous presence of multiple frontier frames engages people with several, competing discourses about natural resources and their value, resulting in efforts to salvage certain elements of nature that are ignored by the dominant regime of production and territoriality.

## 2. *Frontier processes and frontier subjects*

Ever since the colonial state of the Netherlands East Indies claimed, surveyed and subdued Borneo's Wester-Afdeeling (Enthoven 1903), the colonial territory that corresponded to the province of West Kalimantan before Indonesian Independence, successive booms in rubber-cultivation, timber-logging, coal-mining, and industrial and agricultural estates have marked the province as a resource frontier. The most conspicuous development of the last fifteen years is the phenomenal expansion of the area planted with oil palm, which covered an estimated 382,000 hectares in 2005 (Tanasaldy 2012:186), rising to 1,193,581 hectares in 2018 (Badan Pusat Statistik Kalimantan Barat 2020). This period has coincided with a period of relative political calm that started with the national elections of 2004 and the heyday of *pemekaran*, the 'flowering' of municipalities and provinces. The decentralisation law of 1999 devolved important fiscal powers from the national government to the municipalities, known in Indonesia as regencies, and the new local governments' need to develop a revenue base gave them an incentive to collaborate with outside investors, providing them with permits and facilitating their access to land. This particular axis of commercial and state power is one of the most important current mechanisms of territorialisation, a process enabled, but not determined, by the social practices, cultural models and legal regimes that have preceded it in the recent past.

Between 2002 and 2005, I spent brief periods in villages located in the headwaters of the Sekadau River, at that time a remote part of the Sanggau Regency some 170 kilometres from the provincial capital of Pontianak on the coast. My first observations corresponded to Michael Dove's identification (1998) of Dayak groups that had 'persisted' as indigenous communities by balancing the risks of subsistence agriculture with the sale of raw rubber. My later periods of fieldwork in 2012 and afterwards showed the same area and people in a very different light. Disappointed with the falling prices of raw rubber, many villagers had given up their former efforts at extracting and processing it regularly and turned to artisanal gold-mining as their main source of cash income. Unlicensed gold-mining was classified as an activity 'outside' the frontier, as opposed to recent and ongoing government efforts to survey and map village boundaries, forest concessions and the land designated for oil-palm cultivation 'inside' the frontier.

Although the notion of a frontier in this situation does not correspond to any precise division of space, it was evident in the activities of land use, as well as their moral evaluations and legal consequences. Most people considered gold-mining by local villagers to be a nuisance, since it caused mercury pollution in rivers that everybody used for bathing. They were equally aware that logging the hill forests risked erosion and the depletion of communal resources. However, fellow villagers as well as civil servants showed some understanding for these activities because those involved in them belonged to the first groups that had settled the area decades ago. The landscape changes and damage caused by newly planted oil-palm estates were perceived as a problem on

a larger scale. At Christmas 2004, the Sekadau River in the remotest government town rose by several meters and inundated the houses along its banks. Townspeople who had personal experience of agricultural work connected this event to the removal of water-retaining topsoil from clearing and digging the land with heavy machinery in the estates.

While most inhabitants of the frontier villages and towns identified themselves with indigenous Dayak groups, they were in fact the first- or second-generation descendants of recent settlers. The oldest currently existing villages in up-river Sekadau date back to the 1950s, when young men from forty kilometres downstream built seasonal farms on the vacant land they found there and later built permanent houses there for their families. The new villages were built near easily watered flats, possibly with a view to turning these into irrigated rice-fields. Ultimately, however, dry-rice farming on hillsides became the main form of agriculture because of the ease of planting rubber trees on former fields. Although the settlers were interested in virgin land, they did not simply appropriate it, but treated the new village as a complex, social arrangement. Villages founded between the 1950s and 1970s contain ambiguously sacred, human-like figures of wood or clay. These fetish-like figures, as well as ancestral gravesites, mark the collective claims that the founders of the village made to their newly settled land. When I inquired into the family histories of the settlers, I was struck by the lack of interest people showed in their collective past. Rather than justifying their institutions and land claims with reference to shared kinship and heritage, the villagers viewed them as social arrangements that coincided with ancestral place-making. While early attempts at framing the village as a single longhouse community did not meet with long-term success, the settlers were not driven by an individualist frontier mentality. Clearing land for rice fields and most phases of cultivating it were collective efforts that culminated in the lengthy harvest feast called Gawai (a word that translates as 'work') in the harvest season.

Migration to new, remote sites, either in response to oppressive state control or with the encouragement of the state authorities, is a common feature of Southeast Asian history (Hall, Hirsch and Li 2011:29). I argue that the presence of settlers is not automatically a sign of a frontier. Frontiers imply the interactions of different populations and economic patterns that create a contested interpretation of the value of resources and land. In West Kalimantan, such interactions are registered in the comparison between the prices of rubber and rice. As long as one kilogram of each cost the same, people felt reassured about the stability of a livelihood that combined production of both items. Sometime between 2005 and 2010, rubber began to seem too cheap. The rubber trees planted on former rice fields were no longer worth tapping, now merely signifying their owner's claim to the land on which they stood. Oil-palm schemes offered people a way to convert that claim into money, either by becoming stakeholders or 'partners' in an oil-palm estate run by a company, or by accepting a cash payment for the land and losing its potential future benefits.

Nancy Peluso (2012:92) notes how rubber has functioned as both an ethnicity-defining practice of resource management and a nationality-producing crop. In the 1950s, after Indonesia won independence, the country's Chinese population – the first group to grow rubber on small farms – lost their right to hold land in favour of other population groups defined as 'sons of the land' (*bumiputera*). At this point, various Dayak groups of Kalimantan expanded their rubber-extraction, making it a proverbial indigenous livelihood. Later, state-sponsored resettlement programmes called 'transmigration' introduced industrial farming in the so-called 'nucleus-plasma estates' (Peluso 2017:851). These were set up by the government to provide land and livelihood for new settlers from Sumatra and the Lesser Sunda Islands. The migrants from Sumatra in particular had previous experience of industrial farming, and their incorporation into model estates in West Kalimantan underlined their ethnic image as modern, sophisticated agriculturalists, by contrast to the Dayak 'traditionalists'.

In these state-driven projects, rubber was a means of both creating a people and improving their lives. It set the stage for the frontier-making that followed the political turmoil of Indonesia's changes of regime from 1998 to 2004 and centred on the expanding oil-palm economy. The elections of 2004 restored political stability, which encouraged investment in new agricultural schemes. At the same time, the creation of new municipal governments under the policy of decentralisation created new political opportunities for ethnically based political actors. Some upriver Dayak I knew had already accumulated land and hired outsiders to farm the rubber groves they had acquired from other, less prosperous villagers. When Sekadau became a regency in its own right, such people or their children were elected in the municipal council. The regency governments needed a source of revenue, and the backgrounds of their leaders as rubber-farming smallholders did not prevent them from striking deals with companies wanting to turn village land into oil-palm territory. Ironically, the main critics of the company policy of dispossessing local people of their land were the Sumatran transmigrants, the group with the strongest identification with industrial agriculture. It was they, rather than the indigenous peoples, who, in Peluso's (2017:839) words, began to defend the 'smallholder slot'.

Smallholders are not merely victims of privatisation and land-grabs, but a category of people generated by the frontier-making processes in which they may play a key part (Peluso 2017:840). State projects create smallholders as 'frontier subjects', but at the same time smallholders have a certain agency in defining their interests and sometimes in opposing an ongoing project, as in the case of West Kalimantan's transmigrants. The reflective knowledge such people have of alternative frontier frames and their own role in them lends support to the interpretation of frontier-making as a historical process.

## 3. *Wildness and territoriality*

Large- and small-scale entrepreneurial activities signal the presence of a frontier. Tsing (2005:35) points to the image of the itinerant 'square log man' as a figure of the frontier's wildness.[1] In her account, it is difficult to tell if such people represent public authorities, private companies, or vaguely criminal agents outside the control of either. This confusion arises partly from the fact that they are mobile and operate on a small scale, collaborating across ethnic boundaries and working on remote hillsides where companies cannot go. A Javanese man I met near a roadside café in 2012 told me he used to be a labour contractor for Javanese peasants who worked on a nearby oil-palm plantation before taking up his current occupation – dragging cut timber by motorcycle along a path from upstream villages to the nearest town. His move to the 'wild' side of the frontier happened after he was made liable for unexpected health-care costs that the company refused to provide for his workers. For people like him, whether one is on the 'wild' or the 'ordered' side of the frontier depends on the scale of the transactions in which one is able to participate.

This frontier-making agent had no claim to the land at the frontier. This makes him a perfect example of a 'frontiersman' ready to fall back on a diversity of environmental resources when something else fails. Outside agents in West Kalimantan generally do not risk their own resources but seek to live from the land. An example is a Sulawesi businessman who acquired land for an oil-palm farm near the small town of Mahap and logged the forest just before going bankrupt, leaving behind a forest clearing with a few orphaned oil-palm seedlings along the road. Scenarios of this kind are not necessarily premeditated scams to cash in from the timber. Small, local companies run the estates on a shoestring that does not endanger the larger corporate 'group' if they go bankrupt. Planting the estate is funded with loans co-signed by local 'partners' who receive title to twenty or thirty percent of company land – the same land to which they once claimed complete rights. While they are entitled to the proceeds of this parcel of land, these will only materialise about four years after planting, when the trees mature. By that time, people with no experience of dealing with a bank loan start doubting the estate's scheme and give up their remaining share for a one-off payment from the company.

These frequently heard accounts of how people have lost their land illustrates how, in a frontier situation, time 'moves so quickly that results precede their causes' (Tsing 2005:33). In this case, debt and landlessness result from investing all of one's assets in the oil-palm scheme when one cannot afford to wait for the four or five years that it takes the trees to start yielding a profit. The frequently heard argument in favour of

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1 As the Indonesian government restricts the export of unprocessed wood, processing it into beams and boards with a chainsaw or in a forest-based sawmill lends some legality to wildcat timber-cutting, the product of which is often transported across the border to Malaysia in small trucks.

oil-palm agriculture is that it is less labour-intensive than collecting rubber. However, the companies use little local labour, instead hiring Javanese as seasonal labourers to do most planting and harvesting on six-month contracts. The only way for locals to benefit from the oil palm, as the Sumatran transmigrants tell the Dayak villagers, is to obtain personal title to one's land and plant it with oil palms once the company has built a road near it. The company will certainly buy the product, since one processing mill needs raw material from five thousand hectares in order to operate at capacity.

Being a sensible smallholder or stakeholder is not merely a matter of skill and understanding. Various social obligations, such as educating or marrying off one's child, make it necessary to raise money quickly, and other livelihoods and routines interfere with the estate's regular labour schedules. In the rubber-farming regime I observed in 2004, villagers regularly woke up to tap rubber before dawn, faced with the choice of selling a few kilograms in exchange for sugar, coffee and flour, or expending more labour in processing the rubber into flat squares that sell for more. In this regime only the local trader had to keep track of assets, and essentially he or she minded the uncertainties of accessing the market on behalf of everybody else. Land was not an economic asset, but signified the history of the reciprocal, collective labour that had cleared it. I witnessed fathers and sons meeting outside the village to talk in private about managing their trees and plots. For rubber-farming Dayak commercial land use was a peripheral concern, while the landscape itself was a code for diverse social relationships.

It may seem surprising that people who are used to seeing land rights as a family concern would cede their rubber groves to oil-palm companies, thus allowing them to transform the entire landscape into a monoculture. Often the explanation, I was told, was that the owners were tired of tapping rubber, while their children were preoccupied with other things. However, just in case the children might later regret losing the land, company men always took a photograph of the parents when the latter were signing a contract to give the land away. Before the owner could do so, he or she had to obtain a document from the village head, who clarified the tenure situation of the old rubber farm. Essentially, then, the land was under communal management before becoming part of the concession that the company held from the government. The standard period of the concession was sixty years, after which time the original landholders would most likely be dead. After this, the land would revert to the government, like all 'unused' land under Indonesian law.

While these transactions allow people to imagine land as a commodity and sometimes to accept money in return for 'cutting' or yielding their claims to it, the land never becomes private property in the strict sense. The most important result is territorialisation, the formalised production of state land (Kelly and Peluso 2015). The estate economy in the present case carried territorialisation to a new phase, which seems to be absent in former government actions on the land. The area of logging concessions, for instance, was not defined in terms of village boundaries or ownership claims: the documentation only mentioned prominent features of the landscape as its limits. Apparently the gov-

ernment had never felt the need to survey village boundaries before 2012, when this was done in order to prepare zoning laws. The absence of a precisely mapped territory left room for common property institutions up to a point, but once state and company policies recognise private property – organised as the ownership of shares in a landholding company – any land outside the private-property domain is assumed to be open-access, undermining those social forms that do not resemble a frontier (Tsing 2005:35).

Oil-palm expansion is not the only frontier process under way in West Kalimantan. Following the Copenhagen summit on climate change in 2009, in 2010 Norway made a pledge to support measures under the UN REDD+ program to reduce forest loss in Indonesia by donating a billion USD.[2] In the 2010s, Kalimantan was the site of numerous demonstration projects aimed at creating a scalable regime of incentives for local people to abandon swidden agriculture and reduce the risk of forest fires. In some areas, a conservation agenda that promised benefits to local people proved an appealing alternative to oil-palm estates. One REDD+ demonstration project I observed in the Upper Kapuas area of West Kalimantan encouraged villagers to create small agroforestry farms. The aim was to promote a more intensive form of land use and to discourage logging and other extractive activities by providing people with a source of income from cocoa and other cash crops.

This and other, similar projects created a conservation frontier as an alternative to the oil-palm frontier. In Upper Kapuas, as in Sekadau, these frontier frames were offered to entire communities, which had to choose between them. Quite often I heard the leaders of neighbouring villages criticise each other's choices. As can be expected, the main argument for oil palm was the greater prosperity it offered, whereas conservation had rarely been seen to bring any actual economic benefits. But many people also justified their preference for either scheme on aesthetic grounds. Their thinking on this is worth further attention because it demonstrates an interest in an alternative ideological agenda – the value of nature, or its rational management – imagined as a distinct kind of landscape. When I raised the topic of agroforestry in a discussion with a young village head, he objected to it because different trees and vegetables on the same site 'look too much like a forest' – the kind of landscape that was valued in the neighbouring, ecologically minded village. In this other village, my hosts proudly accompanied me to a waterfall next to their small hydro-power plant. They never entered the water themselves, but observed me bathing in it and said: 'What a blessing that we still have such beautiful nature as this'. In either case, a landscape that corresponds to a specific frontier frame – either a grove planted with straight rows of hybridised rubber or a site of clean energy and fresh water – was imagined as a source of enjoyment for foreign visitors.

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2 'REDD+' refers to a United Nations-sponsored programme for reducing emissions from deforestation and forest degradation in developing countries.

When somebody makes a pleasing landscape, it indicates environmental subjectivity – in this case, one that responds to one or other frontier ideology. However, it is not clear if this amounts to frontier-making. I have argued that territorialisation, or the creation of state land, is one important effect of the oil-palm frontier. However, not all personal gardens, groves and farms inspired by the frontier involve direct interaction with markets and state power. Rather, people create them as a 'poetic' space that contains a condensed sense of what is happening (Stasch 2013). Aden, a young, high-status Iban who lived in a longhouse in Upper Kapuas told how he had visited his uncle in the Malaysian state of Sarawak and seen an industrial rubber estate with perfectly straight rows of trees, each with three upper branches to produce foliage to maximise their exposure to sunlight. He showed me a picture of the estate taken from a car window on a rainy day, and another of his own gardens, which contained rows of hybridised rubber trees with a threefold foliage. He showed me how the foliage is made: by tying the top leaves of a sapling together for a few days, and then releasing the knot and picking out all but the three strongest leaves, which then go on to grow into three branches. As we walked through his estate, I saw that it contained a diversity of trees, and my friend was able to recount the properties and history of each one. Some had been collected from the mountain forest on a hunting trip and transplanted here. Others included common estate plants like eaglewood, tallownut, durian and sago, as well as rubber trees bred at different times and by different methods. Each hilltop was crowned with a copse of trees, and some land in the ravine contained an experimental swidden cultivated without fire or industrial herbicides.

This man's garden resembles a museum that synthesises the competing projects of resource capitalism and conservation. Even while introducing me to forest trees and shrubs transplanted to a farm, he became excited about the idea of managing his rubber trees by industrial standards and calculated how many people he would need to employ in order to tap the amount of rubber they would yield. But aside from his mixed ideological motives, it is also possible to see this high-status Iban as trying to solve a problem of social reproduction and to restore the viability of an agricultural community that is suffering acute population loss. Upper Kapuas has sent migrants and labourers to Malaysia for decades, and plantation agriculture on the Indonesian side of the border promises to be the one activity that might give people a reason to stay at home, work together and congregate in festivals. In addition to forest plants, the garden museum therefore salvages a model of collective agricultural work. In Iban society, such work used to be the context for reproducing the longest measure of social time: the cycle of abandoning old longhouses and rebuilding them in new sites (Metcalf 2010).

This example suggests that frontiers do not always scale up their local agents into corporate or state-oriented subjects. Instead of pursuing a strategy of accumulation, my Iban friend's agricultural experiments resulted in an assemblage in which estate agriculture was one among many elements of an artificial landscape that allows the observer to recognise the 'nature' of each species collected by him. Many other people I met prac-

tised 'salvage botany' by transplanting forest plants in their gardens and yards, explicitly aware that their original habitat, the forest, was going to disappear. The landscapes that result are highly relational spaces with a certain agency (Barney 2009:148). Instead of displaying the physical environment in opposition to the human, these landscapes suggest an impulse to translate such ideas as 'nature', 'resources' and 'species' into concrete things that require care and signify the common concerns of those who tend them.

## 4. *Time and the frontier*

Nature and related, universalising concepts are central for disembedding the value produced by human activities from social relations and imagining those activities as part of some larger scheme. The ability to do this is essential for smallholder strategies that aim at incorporation in new, large-scale productive regimes while keeping one's land. Peasant mobilisation requires encompassing categories of identity that help people become aware of their positions in the larger political economy. But the interest of some smallholders in assembling the frontier's orderly and wild aspects into miniature landscapes indicates a wish to scale things down and goes against the grain of the commodity logic that drives the frontier process.

Salvage botany and related aesthetics of the landscape can conceivably have a role in defrontierisation, that is, in countering the unequal power relations of the frontier. Whether or not this will happen depends on the conjuncture and the kind of frontier that forms their context. West Kalimantan forests were ravaged by unlicensed logging after the regime change of 1998, which deprived the government of its control over remote areas. In the Upper Kapuas, local people were the main agents of this activity (Eilenberg 2012) until some of them allied with conservationists and sought government intervention to stop it. Local interest in restoring territoriality coincided with the founding of two national parks that were followed by internationally funded reforestation and REDD+ projects. Despite there being permits for several oil-palm areas, Upper Kapuas was thus framed as a conservation frontier, justified by the value of its biological diversity.

This illustrates the life-cycle and fluctuation of frontier spaces between wilderness and territoriality, as people deal with a crisis in the wider society by taking excessive risks with their immediate resources (Cons and Eilenberg 2019:11). When the crisis is over (in this case, around 2004), restoring the control of space and things within it, becomes the main concern. All the while, however, people make a living out of their ambiguous relationship to state power (Cons and Eilenberg 2019:14), using the opportunities presented by the unguarded national border, and later by the roads and other infrastructure investments made in the interest of national security, industrial agriculture and nature conservation.

Salvage botany in the Upper Kapuas is evidence of the growing presence of conservation discourses among local people who were enlisted in reforestation attempts by such organisations as the WWF and Friends of the Earth, even as large areas around their villages were being gazetted for national parks. Several people were aware of the list of endemic species that provided the bureaucratic justification for conserving this territory. For those who were routinely visited by the forest police, patrolling the area in search of illegal loggers, this inventory suggested that local species and biological diversity itself were potentially property. Following the logic of tree-tenure discussed earlier, the transplantation of plants from their 'natural' habitat into gardens and yards marked these sites as ordered territory, that is, as pieces of land with their own potential as property. 'Salvaging' plants is, of course, related to the urgency of recovering anything of value from the forest before it is destroyed by frontier-making. I made several inventories of forest plants that had been assembled in gardens to see to what extent, if any, they expressed or evoked the value of indigenous knowledge. In all cases, however, it appeared that the plants had been salvaged because of their widely recognised medical, commercial or culinary value to ethnic outsiders.

The political interventions and epistemic justifications of the conservation frontier have turned the formerly alien concept of 'nature' into a routinised category that now frames the attempts to bring nature's value to indigenous control. Salvage botany appropriates the language of 'natural species' – the epistemic justification of conservation – in order to make territorial claims on a smaller scale. It plays a similar role as the technological and bureaucratic language of industrial farming which the former transmigrants have appropriated in trying to avoid becoming landless workers.

Thus far, my observations of frontier people and practices indicate that the overall trajectory of West Kalimantan's frontiers tends towards increasing commodification and market incorporation, even for those local people who represent themselves as Dayak – the colonised group – and who seek to ameliorate the ecological damage of frontier-making. While the indigenous groups of West Kalimantan – and especially the educated, civil-service class drawn from them – show plenty of interest in reviving common property institutions and indigenous knowledge, they too must rely on the support and recognition of national and global institutions in making their revitalised traditions count. Writing from the perspective of the global political economy, Matthias Rasmussen and Christian Lund (2018:393) argue that all territorialisation involves a particular state language and governmental techniques, which are also used by other forms of political organisation, rendering former, 'traditional' forms of territorial control as 'institutional debris […] actively and selectively remembered to fit designs for the future' (2018:395).

The concept of defrontierisation proposed by Greg Acciaioli (this special section) contests this view by affirming the agency of 'peoples who had been erased' in earlier conceptualisations of the frontier. In their argument, one should not privilege the social and epistemic categories that allow people to insert themselves as active subjects into

the political economy of the frontier, but instead consider the historical process of their colonisation and the 'peoplehood' that arises from it. One complication of the Indonesian indigenous rights discourse is that traditional law in Indonesia has evolved out of long-standing intimate links between traditional legal institutions and state authority (Kaartinen 2014:320), simply restoring which risks strengthening the hand of patronising elites (Henley and Davidson 2008). A promising trajectory of defrontierisation is one that does not re-invent traditions in the state framework, but builds on the multiple relations and temporalities of frontier situations.

It is easiest to illustrate these possibilities in the case of people living in Upper Kapuas longhouses. In spite of being trapped between an expanding oil-palm frontier and two national parks, their main problem is not the imminent end of land. Instead, the threat to their delicate inter-ethnic arrangements and ethnic vitality is out-migration to Malaysia and more recently to Indonesian towns. The Iban- and Embaloh-speaking people I studied have largely accepted the need to intensify land use and give up extensive swidden agriculture as the basis of community life. But their sense of peoplehood is still grounded in limited areas of communally managed land that could be made available to return migrants. For both local ethnic groups, tree-crops that benefit future generations rather than the planters themselves signify a possible future in which people congregate in order to share a common resource and recognise their shared past. The 'ethics of access' to such resources is also an idiom of sociality that diverges from the commodified mind-set of the frontier (Peluso 1996). The point of spreading the seeds of fruit-bearing trees randomly in places that people habitually visit (Ellen and Platten 2011:564) is not territorial order and control, but the mutual benefit of trees and the people who harvest them. The Upper Kapuas people who modified their landscapes in this way talked about it in precisely such ethical terms: as a way of considering their descendants, rather than their own current interests.

Whereas conservation practices promote cash-cropping livelihoods to stabilise and intensify land-use among the residents of the conservation frontier, salvage botany evokes a multiplicity of values that mediate the relations between human beings and other organic life. Another important difference is that salvage botany does not pursue a model of ecological relations that expands in scale. The 'peoplehood' implied in this practice is scaled up to neither 'indigenous peoples' nor the 'nation': rather, its reference point is a specific strategy of landscape management that contrasts with that of the nearest ethnic neighbours. Such indigenous strategies are highly specific to the local landscape and cannot be scaled up in a similar sense to that proposed by nationally and internationally promoted mono-cropping schemes. One consequence of this is that people need to organise the work and sale of cash crops internally, through persons who are ready to bear the risk of collecting and marketing the product. As Tsing (2013:23) points out, the sorting and grading that the work of market mediation involves is the source of the product's commodity value, which retains the quality of a 'gift' that embeds it in social time.

## 5. Conclusion

'Salvage' and 'production' suggest two alternative approaches to value-creation in frontier spaces. Even as the estate model of production implies a territoriality that allows large-scale control of land by corporate actors, it leaves opportunities and spatial and temporal slots for activities that are not part of the dominant production model. Salvaging is a highly reflexive activity because it requires the ability to imagine the potential value of the residual relations and landscapes that are not relevant for the now-dominant production regime. This imaginative work can be based on traditional categories and perceptions of the environment, but it is also fed by newly learned discourses and technological skills. Paying ethnographic attention to salvage activities provides a reason for seeing the opposition between frontier and territoriality, or the 'open' and 'closed' states of the frontier, in relative and non-linear terms, as has been suggested in recent theorisations of the frontier. It is also helpful for gaining insights into the strategies and experiments of those who seek to transcend their status as local actors and translate the technological and ideological forces that constrain and enable particular forms of interaction and agency.

One frontier effect discussed in this article is the creation of smallholders: people whose livelihood is based on the forms of property and land use that emerge during frontier expansion. The comparison of rubber and oil-palm economies in West Kalimantan shows that this category can be occupied by indigenous as well as immigrant groups, thus transforming the meanings of ethnic classifications affirmed by the state. Therefore it is possible to explain the presence and decline of particular smallholder populations with reference to shifting resource regimes and the way these are framed as the means of populating, developing, securing, or conserving a certain area. Such analysis is complicated by the fact that the same area is often the topic of different, competing frontier frames. West Kalimantan is simultaneously a frontier of industrial agriculture and of conservation. Both development agendas promote a distinct form of territoriality, with a promise of specific rights, opportunities and livelihoods. Apart from adapting to frontier development in the present, people are therefore invited to make ideological choices and project these into the future.

As people reflect on such choices, they often refer to labour productivity, species diversity, or some other globally circulating calculus of value. At the same time, the radical transformations brought about by oil-palm farming and science-based conservation create a tension between values that claim to be universal and values that are embedded in the social and material conditions of life. The ambiguous scale at which people evaluate the effects of estate agriculture and nature conservation means that they are not simply applications of technology and knowledge, but elements of frontier assemblages: marginal areas, peripheries and borders reinvented as 'zones of opportunity' (Cons and Eilenberg 2019:2).

The notion of frontier assemblages suggests that such opportunity zones are not only created by the state's effects and political economies on a national scale, but also reflect a more general sense of the frontier as a domain for experimental strategies of value extraction and the politics of space. One way to argue for this view would be to show that such patterns as the overlaying of oil-palm and conservation frontiers discussed here are replicated in other places, as seems to happen in other parts of Indonesia and elsewhere. The assembly perspective is a promising way to develop the frontier as an analytic concept, but only on the condition that it does not result in overlooking the specific political economy and ethnic history of each frontier site.

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