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The last enclosure: smoke, fire and crisis on the Indonesian forest frontier

Michael Eilenberg 

Department of Anthropology, Aarhus University, Højbjerg, Denmark

ABSTRACT

Forest and land fires have been occurring in Indonesia since the 1970s, but within the last two decades the intensity of these fires and their effects on neighbouring countries has elicited high media attention and new political engagement. As a direct consequence, the Indonesian government has taken stern measures by prohibiting farmers from burning land and forests as part of their agricultural practices. Through the case of Indonesian Borneo, the paper explores how the haze crisis reinitiates old discourses of 'backward' and 'destructive' agriculture and invigorates policies of agricultural modernisation and privatisation at the expense of traditional agrarian practices.

KEYWORDS

Swidden agriculture; land and forest fires; enclosure; agrarian transition; resource frontiers; Indonesia

Smoke, fire and crisis: who's to blame?¹

In 2015, Indonesian land and forest fires² laid waste to 2.6 million hectares of land, causing an estimated US\$16 billion in losses and damaging relations with neighbouring Singapore, Malaysia and Thailand, which were blanketed in haze (World Bank 2016). To prevent another crisis, Indonesian President Joko Widodo ordered a law enforcement crackdown on 'illegal' burning, and the police have since arrested hundreds of people. In December 2017, the Indonesian government released an ambiguous US\$ 577 million³ plan called the 'Grand Design' that aimed to reduce large-scale land and forest fires for the coming years (Mas Sari 2017; Medrilzam et al. 2017), and in October 2019 the Minister for Environment announced that one of her top priorities would be to work with the Agriculture Minister to end what she labelled 'slash-and-burn' practices among agricultural communities across the country to reduce forest and peatland fires (Gorbiano 2019). Despite the many government initiatives to curb the burning of land, the choking smoke continues to affect the region on a yearly basis.

CONTACT Michael Eilenberg  etnome@cas.au.dk  Department of Anthropology, Aarhus University, Moesgaard Alle 20, DK-8270, Højbjerg, Denmark

¹Data presented in this study have been collected during 33 months of ethnographic field research in the district of Kapuas Hulu, West Kalimantan, Indonesia in the period from 2002 to 2019. Interviews were conducted with a wide array of local and national actors ranging from state officials, politicians, NGOs, entrepreneurs and local elites (village heads and tribal heads) to local swidden farmers. Interviews were triangulated with secondary data from government reports and newspaper clippings.

²Locally referred to as Karhutla (*Kebakaran Hutan dan Lahan*).

³Approx. IDR 8 trillion.

Forest and land fires are not a new phenomenon in Indonesia; the country has a long history of forest and land fires, and blame for these fires has been variously attributed to shifting cultivation, near-ground coal seams and land clearing by smallholders and large holders. Indonesia's vast peat swamp zones have been widely drained and dried for agriculture and made highly flammable. In the dry season, they burn uncontrollably when farmers and plantation companies use fire to clear land. The provinces of West Kalimantan and Central Kalimantan saw the most fire alerts in 2019 (Hanly, Hamzah, and Hanifah 2019). According to the Karhutla Monitoring System under the Environment and Forestry Ministry, wildfires burned 1.649.258 ha of land across the country throughout 2019 nearly three times the area burned in the year before. The fires destroyed 151.919 ha of land in West Kalimantan alone (Karhutla 2020). According to data from Global Forest Watch the 2019 fires are the worst since 2015 (GFW 2019). The causes of these fires are complex and involve multiple actors and institutions ranging from small-scale farmers to large-scale plantation companies. However, one persistent trend has been to blame traditional swidden cultivators, what Rona et al. have labelled 'the contentious problem of fixing blame' (2005, 467). Through the case of West Kalimantan, this paper discusses how subsistence farmers at the forest edge are pushed by recent environmental regulations into high-stakes gambles that risk food insecurity and crisis. The paper highlights how newly gained rights to manage traditional forest territories are contested by the plantation lobby and how the current public-state focus on the region's haze crisis reinitiates old discourses and policies of agricultural modernisation that encourage processes of large-scale agrarian expansion.

The paper proceeds as follows. In the first section, I will expand upon the notion of resource frontiers as an analytic to understand the persistent push towards large-scale agrarian expansion at the expense of traditional agrarian practices. This frame provides clues to the persistency of swidden criminalisation and the consequent exclusion of access to land and dispossession in contemporary Kalimantan. Next I will analyse critical scholarly engagements with the practice and politics of swidden agriculture and land fires in Southeast Asia and discuss its contested history. I here discuss the 'business of fire' and analyse how the burning of land and forest is part of a larger frontier assemblage of appropriating land and making it investable for large-scale plantation development. I then introduce the regional context and provide an overview of the social and political dynamics of swidden agriculture and land/forest fires in the Indonesian province of West Kalimantan. That is followed by an examination of the 2016 ban on burning land for agriculture and how these environmental regulations are understood and interpreted locally. Drawing on long-term ethnographic fieldwork, I consider the local consequences of these regulations for communities in the district of Kapuas Hulu and Sintang both in regard to food security and land access. In the next section, I discuss how the negative focus on swidden practices is maintained by large-scale land investors and plantation companies to divert the focus from larger land-clearing practices and how these can be seen as strategies for freeing up more land for investment and privatisation, disassembling local systems of user rights and small-scale agriculture. Finally, I conclude by considering how the carpet criminalisation of traditional swidden farmers has forged new agrarian coalitions and mass protest across Kalimantan, instigating awareness about the structural dilemmas of food insecurity and land access that thousands of small-scale farmers experience on a daily basis.

Assembling a resource frontier

The frontier concept has been widely used in scholarly discussions to portray different dynamics of territorialisation and resource control which often emphasise the discursive tactics encapsulated in the frontier trope of 'untouched wilderness' and infinite 'unexploited resources' (Tsing 2003; Tsing 2000). Within these discussions the making of a resource frontier involves an unmapping of place through a process of rendering extractable. In other words, transforming space and place into land and property ripe for exploitation (Li 2017). The discursive constructions of 'empty' and 'wild' lands inherent in the frontier trope have long been driving and legitimising processes of capital accumulation, dispossession and alienation from land in marginal spaces throughout Southeast Asia (Fold and Hirsch 2009; Barney 2009; De Koninck 2006; Peluso and Lund 2011; Taylor 2016; Eilenberg 2014a; De Jong, Knippenberg, and Bakker 2017). As argued by Cons and Eilenberg, 'Frontiers are the condition of possibility for capitalist expansion. Sites where capitalist crises of over-accumulation are resolved in ways that forestall broader crises and systemic collapse' (2019, 7). They are the sites of what Marx (1976) termed primitive accumulation and what Harvey (2005) reframes as accumulation by dispossession.

In their mapping of frontier dynamics in Asia, Cons and Eilenberg (2019) apply the term of frontier assemblages to further indicate the historically contingent convergence that reframes space as extractable and facilitates capitalist expansion. Resource frontiers are here understood as embedded within long histories of structures of capital accumulation and territorial management. 'Frontiers leave land in their wake in which the relationships between landscape and the people, animals, and plants found within them might be permanently transformed' (Cons and Eilenberg 2019, 13).

For example, the swidden communities in the district of Kapuas Hulu populating the hills along the Malaysian border, which make up the main case of this paper, have long been seen as underdeveloped and especially recalcitrant towards government rule (both colonial and postcolonial) and thus exposed to violence and militarised control. As noted by Rasmussen and Lund, 'Frontier spaces are where the often-violent destruction of previous orders take place, and the territorialization of new orders begins' (2018, 396). In his study of the post-conflict Aceh (Sumatra) oil palm frontier, Lund for example show how conflicted agricultural land was turned into a resource frontier and territorialised into plantations leading the way for violent dispossession of peasant smallholders (Lund 2018). In the context of West Kalimantan, Peluso (2017) follows a similar trajectory showing how the dynamics of resource frontiers effect rural smallholders through racialised and violent land politics.

Further, the forest and swidden landscapes in Kapuas Hulu have repeatedly been imagined and portrayed by government and private entrepreneurs as 'untouched', 'unproductive' and 'abundant' resource frontiers waiting to be harvested and 'opened up' and appropriated for industrial agriculture and resource extraction. Most recently, these landscapes have been positioned as new frontiers for mono-crop palm oil production (Peluso and Lund 2011). I find such dynamics of 'frontierization', 'the ways that frontier spaces are framed and made into sites and zones of production and extraction' (Eilenberg and Cons 2019, 234), especially helpful in thinking about the political economy of swidden agriculture and the dilemmas of land and forest fires in Indonesia. Fire and the burning of land

in the case of West Kalimantan seems to operate on multiple registers as a technology or tool for assembling and expanding the plantation frontier. As I will touch upon later, fire erases existing landscapes and is an inexpensive tool to prepare land for investment, often deliberately applied by investors and plantation companies. On the one hand, it does the job of materially forwarding processes of enclosure. But on the other hand, as I will discuss in the coming sections, it also ends up being a discursive loci of struggle where swidden agriculturalists are further demonised, but around which they also organise to push back against government regulations and the plantation lobby that wishes to transform their agricultural practices and livelihoods towards a large-scale mono-crop economy. In other words, the government ban on the burning of land also opens up new opportunities for claim making over access to land and resources and is part of wider struggles for recognition. Hence, the debate on fire and burning is simultaneously a discussion of enclosure and land conflict in Kalimantan and, as Li reminds us, when capitalist relations stimulate enclosures of land (Li 2014a), 'the poorest people exit agriculture on the least advantageous terms' (Li 2009, 634). In the following analysis of the political economy of swidden agriculture I will demonstrate how resource frontiers are things in the process of becoming that are assembled by a diverse array of actors. As elucidated by Rasmussen and Lund, 'a frontier is not space itself. It is something that happens in and to space. Frontiers take place. Literally' (2018, 388).

The political economy of swidden agriculture

The practice of swidden agriculture – a major livelihood activity for generations of small-scale upland farmers in Southeast Asia – is in rapid demise as a result of immense pressure from a broad assemblage of factors ranging from issues of ecological degradation, population pressure, conservation efforts, infrastructure development, expansion of large-scale plantation agriculture, forestry and mining to broader political discourses concerning agricultural modernisation, rural-urban migration and shifts of social and cultural values (Padoch et al. 2007; Fox et al. 2009; Cairns 2015; Dressler et al. 2017; van Noordwijk et al. 2008).

The term 'swidden' finds its origin in Scandinavia⁴ and was primarily adopted by anthropologists in academic debates in the mid-twentieth century as a term to describe various kinds of traditional cultivation practices in which land was cleared by burning in tropical landscapes (Russell 1988; Li et al. 2014; Mertz et al. 2009b). For example, Harold C. Conklin's 1950s pioneering study of Hanunoo swidden systems in the Philippines discusses the complexity of swidden cycles and the large importance of swidden agriculture for Hanunoo cultural life (Conklin 1954, 1957). In this paper, I use the definition of swidden offered by Conklin: 'shifting cultivation may be defined as any agricultural system in which fields are cleared by firing and are cropped discontinuously (implying periods of fallowing which always average longer than periods of cropping)' (Conklin 1957, 1). I further refer to 'swidden cultivators' as people that have used swiddens for generations and therefore have systems well adapted to their environment. Mertz et al., for example, distinguish between 'traditional swidders' and 'partial swidders'; the later have become swidders by necessity rather than choice and thus do not possess the same level of

⁴Swidden agriculture or *svedjebruk* was until the early twentieth century for example a widely used agricultural practice in Sweden (Pyne 1997, 81–84).

knowledge as traditional swiddeners (Mertz et al. 2009a, 282). However, as indicated by Mertz et al., the immense change of land use systems and livelihoods in recent decades, 'has given rise to a diverse array of land use and livelihood systems that defy simple classification' (Mertz et al. 2009b, 261).

Despite the comprehensive and rich literature on the complex practices and values of swidden agriculture in Southeast Asia and elsewhere, it has had little impact on the broad policy of criminalising swidden agriculture. Poor understanding of the rotational fallow systems in traditional swidden agriculture and the 'invisibility' of fallows still result in fallow lands of swidden farmers being categorised as 'degraded forest', 'waste lands' or 'idle lands', resource frontiers to be opened for appropriation by the state and large-scale commercial land use (Colfer, Alcorn, and Russell 2015). As stated by Fox et al., the swidden fallows 'pose a dilemma to government agencies trying to classify them as forest "in the making" or agriculture "in transition"' (Fox et al. 2009, 308). Swidden agriculture has been seen as static for a long time, despite evidence showing that swidden agriculture has always been characterised by change and swidden farmers have continuously modified their practices and adjusted to landscape and environmental changes and new opportunities. Colfer, Alcorn, and Russell (2015) have suggested that a more accurate definition of the system of swidden agriculture would be 'agroforestry', a term that may remove some of the negative connotations associated with 'slash-and-burn agriculture' and 'shifting cultivation' (Colfer, Alcorn, and Russell 2015, 64), what Fox et al. have labelled the political-economic marginalisation of swiddeners (Fox et al. 2009, 310).

Already back in 1983, Michael Dove (1983) attempted to debunk some of the widely accepted and persistent myths about swidden agriculture in the tropics by revealing what he labelled 'the political economy of ignorance'. He highlighted three myths: first that swidden agriculturalists own land communally, second that their practices are destructive and wasteful and finally that they rely on a fully subsistence economy. All three are still today part of public and political discourse and are used to either criticise or celebrate the practice of swidden agriculture. Dove further asked the question of why these myths have been so persistent and argues that they have played (and still do today) a large role in justifying the extension of outside control on swidden agriculturists' territorial lands for commercial exploitation and development. For example, in a case study on the politics of swidden in Vietnam, Pham Thu et al. (2020) show how swidden agriculture is politicised and the environmental degradation caused by swiddens is exaggerated in order to justify and legitimise government control over land and to enable state interventions. Such anti-swidden narratives have been especially persistent within the larger debate on the decades of land and forest fires in Indonesia. For example, in a study of the devastating 1997–1998 fires in Indonesia, Anshuman Varma (Varma 2003) provides an economic assessment of what he labels 'slash-and-burn' practices. Varma here argues that slash-and-burn practices are highly inefficient from a social and economic perspective and thus should be broadly discouraged and banned. In a critique of the study, Tacconi and Vayda (Tacconi and Vayda 2006) argue that Varma's definition of 'slash-and-burn' agriculture is too broad in lumping together small-scale shifting cultivation with large-scale plantation agriculture and does not take into consideration the diversity of swidden systems. They also state that his policy recommendations lack awareness and are therefore flawed.

Despite the immense pressure to abandon the swidden systems of small-scale farming communities, several studies have also shown the persistence of swidden agriculture and

how swidden still is a dominant land use system in upland areas of Southeast Asia like Kalimantan, Indonesia (Thung 2018). Globally, swidden agriculture is still practised in a sizable area of forest-agricultural frontiers and is therefore of immense importance to secure food security for large parts of the rural population (van Vliet et al. 2012). In the province of East Kalimantan, Thaler and Mindry Anandi (2017) show how villagers in a situation of insecure tenure arrangements use the opening and clearing of swiddens as a strategy of territorial land control towards neighbouring villages and expanding outside interests that want to convert village territory into commercial plantations or mining.

The authors of a 2017 comprehensive review of swidden decline among upland farmers in Southeast Asia argued that the transition from swidden agriculture to other cropping systems may have increased overall household income but came with significant long-term costs and insecurity. Among other concerns, the authors mention the reduction in customary practices, socio-economic well-being and stable diets as significant trade-offs when transitioning away from swidden systems (Dressler et al. 2017). Despite government rhetoric highlighting swidden agriculture as primitive and ineffective, according to recent studies, swidden agriculture in most cases results in better nutrition than the practices that replace it and provides greater robustness in regard to food security (Ickowitz et al. 2016). Swidden agriculture, it is argued, is good for biodiversity and should be an essential component of a tropical forest 'conservation-agriculture matrix' (Padoch and Pinedo-Vasquez 2010, 551). As mentioned by Dove (1993, 2011) in his studies of swidden agriculture in West Kalimantan, such subsistence practices never stood alone but were part of a diversified economy of subsistence or 'dual economy' that always went hand in hand with the cultivation of export-oriented cash crops like integrated smallholder rubber cultivation and forest products – an argument supported by numerous studies since then.

The business of fire – rendering land investable through burning

During the large land and forest fires in Kalimantan during the 1980s, swidden cultivators were openly blamed as part of the Suharto government strategy in criminalising swidden practices and promoting the fast-growing plantation sector. But already a decade later during the fires of 1997–1998, the changing political climate opened up for more nuance, and the role of plantation companies was openly discussed. In their study of 1997–1998 fires, Byron and Shepherd mention how the Suharto era's push to expand large-scale plantation development (oil palm, rubber and industrial pulpwood) resulted in large areas of land being deliberately cleared and burned for capitalist production. Burning being the cheapest form of land clearing (Byron and Shepherd 1998). It was recognised that fire was used as a weapon in conflicts over land and to make land accessible for industrial land uses (Tomich et al. 1998). Emily Harwell (2000) further mentions how the introduction of GIS technology and satellite imagery during the 1997–1998 fires became a tool of NGOs to pinpoint 'hot spots' and showcase that the majority of fires took place within plantation lands and could thus not only be blamed on climate (El Niño)⁵, drought and swidden farmers but were related to larger land use changes. However, for a long time, Indonesian officials denied any human responsibility for the fires besides the

⁵The land and forest fires might have been exaggerated and amplified by dry climatic conditions due to El Niño but were largely ignited intentionally by humans (Purnomo et al. 2019).

usual suspects of swiddeners (Harwell 2000). Government officials saw underdevelopment and poverty as the leading causes of the fires in the 80s and 90s. According to Harwell,

Time and time again, in discussing causal factors of the fires, both government officials and donor agency staff voice frustration at what they perceive as the intractable rural culture that refuses to accept 'modern' agriculture and 'modern' Indonesian culture. The alleged recalcitrance of 'primitive' rural swiddeners provides an easy scape-goat for state officials wishing to protect elite interests in lucrative forest conversion and extraction. (2000, 322)

In 1995, the Indonesian government issued Government Regulation No. 28 of 1985 on Forest Protection that expressly forbids the use of fire to clear land for plantations, with exception for special cases approved by the legal authorities (Article 10, Paragraph 1). Despite such regulations, industrial-scale land clearing through burning by either plantation or logging companies has been persistent since the 1980s, documented through long-term satellite observations (Sloan et al. 2017). However, as concluded by Carmenta et al., 'despite the prevailing dichotomy of small versus industrial, the data suggest that no single stakeholder group is primarily responsible for fire-setting' (Carmenta et al. 2017, 54). The heightened fire frequency is rather caused by the interactions between industrial land uses and smallholder activity, such as sharecropping which blurs the lines between large-scale and small-scale. This blurring results in actors blaming each other for causing fires. Thus, Indonesia's land fires are started by land clearings by both small-scale farmers and industrial land uses, although the size and intensity of fires are not equally divided between the different agricultural practices (Watts et al. 2019).

As indicated above, fire is a cheap and quick tool to clear land and make it investable for the expansion of industrial land uses, and it has been well documented how fire is strategically used as a land-clearing tool (Greenpeace 2019). Within existing debates on 'land grabs' in Southeast Asia, much attention has been given to the intricate accumulation strategies of making land a commodity (Hall 2011; Borras and Franco 2012; Li 2011). Tania Li (Li 2017, 2014b) has, for example, critically examined the complicated assemblage of processes that help 'render land investable' for global capital. Li notes that, 'land is a strange object. Although it is often treated as a thing and sometimes as a commodity, it is not like a mat: you cannot roll it up and take it away.' (2014b, 589). Assembling land as a resource, she argues, involves multiple actors, villagers, investors, government officials, etc. who all have different stakes and interests but who all play a role in turning land into an investable resource (Li 2014b). In the case of Indonesia, the process of freeing up land for investment and gaining a higher price through burning is well documented. Fire and burning is one way to establishing a land's value. For example, Purnomo et al. in the case of Riau in Sumatra show how,

The condition of land being traded was adjusted to buyers' demands; some buyers demanded ready-to-plant land (cleared, slashed and burnt), some buyers demanded land that had only been cleared and slashed; while others demanded ready-to-harvest land (already planted with oil palm). Higher values were obtained from 'ready-to-plant' land, which had already been slashed and burnt. Local people call this mode of trading '*terima abu*' (receiving the ashes). (Purnomo et al. 2017, 25)

Returning to Li (2017), it could be argued that by 'erasing' the trace of material and social relations through the burning of brush and forest, land becomes a *tabula rasa* that can be easily appropriated and used for agricultural or extractive purposes.

The large amount of economic rent involved in land investments and trading means that fires create huge incomes for various elites – both district government officials governing plantation licencing and heads of farmer groups for their contributions to land clearing, and for oil palm investors developing areas in the aftermath of the fire (Purnomo et al. 2017; Purnomo et al. 2019). Varkkey (2012), among others, has documented how the widespread practice of patronage politics in the plantation sector has enabled these oil palm investors and companies, both nationally and internationally controlled, to act with impunity, even in the face of open-burning allegations by civil society. The land clearing by fire portrayed by Purnomo et al. (2017) is taking place all over Indonesia as well as in West Kalimantan and has largely been facilitated by the last 20 years of decentralisation and the resulting unsolved issues related to natural resource authority among different levels of government (Wadley and Eilenberg 2005). Furthermore, the rapid growth of impoverished independent smallholders who have planted their small plots of land with oil palm and who are not part of larger plantation schemes often have no alternative but to clear more land through burning in order to make ends meet (Li and Semedi 2021). As discussed by Naylor et al. (2019, 1204), ‘overlapping governance of land and natural resources also encourages a ‘race to the bottom’ in terms of deforestation and land clearing by fire, and generates conflicts between villages and higher levels of government over land rights’.

As indicated above, the underlying causes of land fires have evolved from a long history of entrenched social-politic problems and the strategic processes of frontierisation; however, action plans to prevent land fires still prioritise technical solutions like satellite surveillance, firefighting technology, government regulations and criminalisation (Purnomo et al. 2017). As argued by Tania Li (2007), governments tend to frame problems by focusing on technical solutions, what she defines as ‘rendering technical’, and thus fail to address the underlying structures which are the main reasons for the problems they seek to improve. In the next section, I will discuss how the re-emergence of carpet criminalisation of swidden farmers in the district of Kapuas Hulu has been part of a continuous frontierisation effort by changing government authorities, conservation organisations and the plantation industry for decades, not least to free up more land for plantation expansion and conservation.

Swidden agriculture, plantation development, conservation and food security in Kapuas Hulu

The Kapuas Hulu district consists of 29,842 km² (20.33% of West Kalimantan) divided into no less than 23 districts with a total population of approximately 260,000 (BPS-KH 2019). According to district statistics, an average of approximately 70 per cent of the total land area is said to belong to various categories of forest, and it is estimated that 85 per cent of the population is involved in various kinds of agriculture and forestry (BPS-KH 2019). The district is situated in the northernmost corner of the province of West Kalimantan, more than 700 km from the provincial capital Pontianak on the coast. To the north, the district shares the international border with Sarawak, Malaysia, while to the east, it borders the Indonesian provinces of Central Kalimantan and East Kalimantan. More specifically, in this study I focused on a series of events unravelling



Figure 1. Map of West Kalimantan (by the author).

mainly in the Iban⁶-dominated subdistricts (*kecamatan*) within the Kapuas Hulu district on the border of the Malaysian state of Sarawak (see Figure 1).⁷

Upriver in close proximity to the border, the area is dotted by small hills largely covered by tracks of secondary forest in different stages of growth – a result of generations of swidden cultivation and more recently commercial logging and plantation development. Besides numerous small streams, two major rivers have their source in the hilly border area, the Leboyan and Embaloh Rivers respectively. These two major rivers feed into an

⁶Iban is a Dayak subgroup. Dayak is the umbrella term for the indigenous population on the island of Borneo.

⁷Batang Lupar, Embaloh Hulu, Badau, Epanang and Puring Kencana. The five subdistricts (covering approximately 6296 km² or 22 per cent of the district) make up the largest stretch of territory along the international border out of a total of seven border subdistricts within the ‘mother’ district. According to district figures the population in the five districts was approx. 20,000 in 2018 (BPS-KH 2019).

extensive area of shallow lakes and seasonally flooded swamp forest and valleys at the foot of the hills. In between these tracks of secondary hills and swamp forest, there are larger pockets of old-growth forest. Two such large pieces of old-growth forest were in 1995⁸ and 1999⁹ declared national parks; altogether more than half of the district is classified as protected forest, which falls under the authority of the central state. As such, the landscape is a patchwork of swiddens, forest gardens and old-growth forest crisscrossed by logging and plantation roads and rivers.

The majority of the Iban communities who inhabit the hilly borderlands of Kapuas Hulu still reside in extended longhouse settlements, and their traditional economic foundation is based on subsistence agriculture and forestry. The subsistence economy is based on an established agroforestry complex, its central component being the cultivation of rice in hill and swamp fields cut from long-fallowed forest within a ritually interdicted longhouse territory. It is estimated that 80 percent of the population in the district still practice various kinds of circular swidden agriculture. The Iban communities have typically supplemented their subsistence farming with hunting, fishing, collecting forest products, tapping rubber or cultivating pepper and long-distance wage labour migration. Iban strategies for mitigating short-term environmental vagaries include maintaining multiple varieties of rice, diversifying crops, placing fields in different micro-environments, ensuring adequate fallow periods, maintaining reciprocal relations with other communities and engaging in cash cropping or wage labour. These serve to spread risk or provide some degree of subsistence insurance in the event of harvest failure. Behind all of this lies Iban ecological knowledge, which includes intimate understandings of forest succession and of plant and animal species (both wild and domesticated).

The Iban swidden farmers are attentive to short-term climatic variability, ranging between daily and seasonal changes such as the onset and length of wet and dry seasons, which affect the scheduling of agricultural activities like the planting of annual subsistence crops. In response, they have long practised a number of risk-reduction strategies, including diversifying crops. However, despite their long-term presence in the region, very few people have official deeds to their lands, which through the centuries have been passed on from generation to generation via traditional and intricate systems of tenure and user rights (Wadley 1997b). The typical fallow period for the majority of Iban swidden communities in Kapuas Hulu is between 10 and 20 years. However, it is the width of trees, rather than their age, that is used as the indicator (Wadley, Mertz, and Christensen 2006).

Clearing the forest through burning creates a layer of nutrient-rich ash on the top of the soil which make the soil more nutrient for planting, as it is inherently acidic. They use firebreak strips of lands around the fields cleared of vegetation (locally called '*ilaran api*') to control the spread of fire. Groups of farmers use fire to clear land, using a circular pattern for control at the forest margin and lighting fires against the wind direction to avoid uncontrolled spread. Iban communities consider it a disgrace if fires spread to adjacent fields, which results in serious punishment and heavy fines. The communities rely heavily on their forests for swidden rice farming and numerous non-timber forest products: one study determined that Dayak communities, unaffected by timber cutting and

⁸Betung Kerihun National Park, 800,000 ha of hill forest along the border.

⁹Danau Sentarum National Park, 80,000 ha of shallow lakes and swamp forest.



Figure 2. Swidden fields in the Kapuas Hulu District (by the author).

related forest destruction, purchased only nine per cent of their foods; the remainder came from fields and forest (Colfer et al. 2000) (see Figure 2).

To further supplement the household economy, and be able to buy sought after consumer goods, and pay for children's schooling, people engage in different kinds of wage labor more often than not across the border in Sarawak (Eilenberg and Wadley 2009). However, they cannot abandon the farm economy, as the wages earned are rarely enough to provide all subsistence needs. During the new order regime of Suharto, local income opportunities were almost solely derived from labour migration to the economic centres in Sarawak across the border. In the late 1960s, Suharto divided the widespread forest areas along the border into large timber concessions. Logging licenses were largely awarded to Suharto's business partners and military entrepreneurs. From the 1960s until Suharto's fall in 1998, local communities received little compensation for forest logged, and the majority of jobs went to labour migrants from other parts of Indonesia (Wadley 2000). Today it is becoming increasingly difficult for local communities to cross the border for labour migration because of hardening border regimes and militarisation; thus they are more heavily reliant on swidden agriculture and the limited new income opportunities that have emerged in the rapidly expanding oil palm plantation industry.¹⁰ Until recently the main economic sector in Kapuas Hulu has been forestry. Kapuas Hulu's economic dependency on forestry is more than twice that of other districts in the province (Yasmi et al. 2006). Due to its large forests, remote location and, until recently, lack of functioning infrastructure, few other economic opportunities have been available. Compared to the rest of the province, large-scale monocropping, such

¹⁰While the majority of young people in the past engaged in circular labour migration into neighbouring Sarawak taking up labour for a couple of months a year (returning at critical moments in the swidden cycles to help out), the militarization of the border has refocused their attention towards the district and provincial capital for circular labour migration. While other districts in the province have seen rural villages deserted by young people. Most villages (long-houses) in the five subdistricts discussed still retain a mix of generations and strong engagement in local swidden practices.

as palm oil cultivation, is a fairly new development in the district, and the first plantations were introduced in 2005 after a longer period of rampant illegal logging in the region (Eilenberg 2014a; Wadley and Eilenberg 2005). However, for the last decade, government policies are favouring large-scale oil palm plantations that compete for land, and there is increasing pressure to convert land under swidden farming to plantations both from district, provincial and central governments (Pemred 2017; Eilenberg 2014a; Ahmad, Wagiman, and Bawor 2009).

Besides pressure from government-private plantation programmes, the swidden communities have also experienced a push from environmental organisations through conservation efforts to give up their swidden practices. Swidden agriculture and conservation efforts have a contentious history in the district, going back to the creation of two large national parks, Betung Kerihun and Danau Sentarum, whose boundaries local swidden farmers claim, up until today, extend into their customary territory and swidden fields. More recent attempts to develop REDD+¹¹ mechanisms in the study area have resulted in further discontent and show how swidden agriculture is understood as an obstacle to the implementation of REDD+. Within these conservation circles, swidden farming has been seen as an archaic practice that destroys forest and biodiversity. A large part of the conservation efforts through REDD+ programmes in the district have focused on providing technical knowledge and farming implements to villagers who choose to open up land for wet rice outside the areas targeted for conservation (Eilenberg 2015).¹² Since REDD+ necessitates a stable, non-changing carbon stock for a long period of time, it was seen as incompatible and cannot be combined with swidden agriculture, and as any area under a REDD+ scheme is unavailable for the growing of rice, be it *sawah* (wet rice) or swidden, the conservation organisations wanted it to take up as little space as possible (Mikkelsen 2015).

What was seen as a technical problem that could be solved by a change in tenure, the conservation organisations hoped to convince the villagers of the benefits of the *sawah*. So, they promoted the wet rice, as it is more productive per hectare and most importantly, it is not moving. Arguably, the pressure exerted on fallowed land increases as the population increases and the availability of land decreases, but the REDD+ is contributing to this, as it takes land out of rotation in exchange for an unclear future income. Thus, REDD+ is seen, by many farmers, as a competitor to established swidden farming, forcing the villagers to choose between swidden and reforestation (Mikkelsen 2015). If land is plentiful, one could imagine that the incorporation of fallowed land under REDD+ schemes would lead to new land being opened up elsewhere, negating the effect of the area conserved through REDD. This is, in REDD terminology, known as leakage. The villagers in the study area, however, had no easy access to additional land and instead resisted conservation efforts for fallow swidden land, as they wanted to keep it open for future swiddens. Furthermore, the conservation organisations had very little luck convincing the villagers of the merits of converting land and growing wet rice and of maintaining the extensive irrigation works needed (Mikkelsen 2015).

¹¹Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries or REDD+.

¹²For other examples of REDD+ and swidden conflicts in Kalimantan see Thaler and Anandi (2017, 1082).

Prodigal farmers and ‘Plunder’ farming

The idea of swidden agriculture as environmentally destructive and wasteful agriculture that flourishes in the district is deeply anchored within the general Indonesian public and policymakers often as a result of misperceptions and poor understanding of actual agricultural practices. In the Indonesian archipelago, swidden agriculture, has a long and contested history. Blaming subsistence agriculture for deforestation has been ongoing since colonial times, and especially Dayak groups like the Iban inhabiting the uplands of Borneo were seen as ‘prodigal’ farmers and forest destroyers whose subsistence economy kept them in perpetual poverty (Freeman 1970; Wadley 2007; Padoch 1982).¹³ When the Dutch first arrived in the Upper Kapuas river region, what today makes up the district of Kapuas Hulu, they instantly attempted to subdue and ‘modernise’ the agricultural practices of local Iban communities towards more modern, productive, efficient and ‘sustainable’ agricultural practices like wet rice cultivation (Scheuer 1932). According to the colonial (and postcolonial) land laws, smallholders’ territorial rights to land were only recognised for land under permanent cultivation like wet rice and rubber cultivation and other perennial crops, while fallowed swidden land did not count as cultivated (Dove 1983, 1993). In 1874, swidden agriculture was banned by law in Java – a process that was induced by the so-called ‘Domeinverklaring’ from 1870 that aimed at separating out the land under permanent crops from ‘wasteland’ like swidden fallows (Fox et al. 2009, 315). Colonial archives from the Upper Kapuas region describe local swidden farming as *roofbouw*, literally ‘plunder farming’, that was robbing the soil of its fertility and thus prevented the colonial government from controlling and capitalising on their farming activities (Bouman 1952). The term *roofbouw* carries connotations of nomadism, evasive practices and rampant forest destruction. As emphasised by James Scott, ‘the need for the natural resources of the “tribal zone” and the desire to ensure the security and productivity of the periphery has led, everywhere, to strategies of “engulfment” [...]’ (Scott 2009, xii).

According to Reed Wadley (2007), one of the major reasons for Iban hill communities at the time to engage in particular in the less sustainable land-use practices of opening up large swiddens in old growth forest was the Dutch long-term attempts to subdue, pacify and stress the rebellious hill communities to move closer to control. Dutch tactics of pacification unsettled and demoralised the Iban and at times resulted in short-term survival strategies on behalf of the affected communities (Wadley 2007). In a report on local Dayak (Iban) agriculture practices, a Dutch official named J. E. L. Burgemeestre who was stationed in the region in the 1930s wrote the following under the rubric ‘Means of subsistence - roofbouw’:

The main means of subsistence can be subdivided into dry (*ladang*) and wet rice (*sawah*) cultivation. The dry cultivation is the creation of *ladangs*, or plunder farming. A very regrettable consequence of these depletions – the construction of *ladangs* – is the emergence of enormously extensive grass (*alang alang*) fields, which are a large disadvantage for the population. (Burgemeestre 1932, 21)

In an attempt to convert and modernise local agricultural practices towards wet rice cultivation, the Dutch already back in the 1920s had begun constructing irrigated rice fields in

¹³For similar colonial anti-swidden discourse elsewhere in Southeast Asia, see Dressler and Pulhin (2010).

the lowland plains in the Upper Kapuas region. Many Iban communities were forcibly moved down the hills by Dutch military forces, but only a few settled permanently, and the rest quickly returned to their hill swiddens and ancestral lands (Eilenberg 2014b). At that time, other groups had already claimed most land suitable for wet rice cultivation in the lowlands. After independence, the new Indonesian government used a similar tactic of forced resettlement and agricultural conversion to wet rice cultivation. Adopting the former colonial views on hill swiddens as underdeveloped and inefficient ‘backward agriculture’, the district government together with the Indonesian military initiated policies on agricultural modernisation as part of the ‘road and rice’ campaign (Davidson and Kammen 2002, 25). By encouraging the growing of irrigated rice in the plains, the military further expected that Iban communities would move away from the hilly areas close to the international border with Sarawak, Malaysia, and settle out of reach of communist insurgents who roamed the border region in the 1960s and 1970s (Soemadi 1974). As mentioned earlier by Dove (1983), one of the most persistent myths about (Iban) swidden agriculturalists is that of primitive communalism. The idea that these communities would be more prone to ‘communist ideology’ was accentuated by the misunderstanding of the practice of inter-household labour arrangements and the constitution of longhouse organisation as expressions of ‘communalism’. The Indonesian military therefore put extra effort into suppressing all practices that they believed would pose a political threat (Eilenberg 2011b). However, as during the Dutch colonial period, the Indonesian military resettlement programmes only partly succeeded, and most communities remained in the hills farming their customary land, over which they had traditional user rights. The land converted by the military was generally not suited to extensive wet rice cultivation, and without access to subsidised herbicides and fertilisers at an affordable price, the yield quickly fell to below what was produced through swidden farming.¹⁴

Contesting the ban on burning

It was July 2016, and the time for the annual burning of the fields in early August was quickly approaching. The farming communities in Kapuas Hulu had already finished slashing the underbrush and cutting down the smaller trees to dry up in the sun in anticipation of a good burn. This activity was part of the traditional swidden farming cycle – choosing a field site, slashing the underbrush (*nasau*), felling the trees (*nebang*), burning the dried vegetation (*nunu*), planting, weeding and harvesting crops (*ngetau*). However, this year the circle was disrupted, and the anticipation of a good burn was suddenly replaced by a widespread fear when district police began posting billboards throughout the district and arresting local farmers who already had started burning their fields. The billboards announced that anybody, without exception, who burned forest and land would be liable to prosecution amounting to 15 years in prison and a fine of 15 billion rupiahs, an astronomically high amount for a poor subsistence farmer in Kapuas Hulu or elsewhere in Indonesia for that matter (see Figure 3).

The billboards and arrests were a direct result of the nationwide presidential crack-down on land and forest fires, enacted in order to prevent another haze crisis as

¹⁴In addition, the high-yield rice (*padi unggul*) used in the irrigation schemes was locally seen as too short for easy harvesting and tasteless (*penat*) when cooked (Wadley 1997a, 247).



Figure 3. Billboard prohibiting the burning of forest and land in the Kapuas Hulu District (by the author).

experienced in 2015.¹⁵ Already in January 2016, the president declared that he would take firm action and sack local military and police chiefs if they did not immediately prevent the spread of land and forest fires in their regions. However, those who showed good results in tackling the problem would get promoted (Soeriaatmadja 2016). Local authorities were caught in a large dilemma; on the one hand, they were under immense pressure to carry out the presidential instructions, but, on the other, they also faced massive and direct criticism on the part of local swidden farmers, their customary leaders and NGOs fighting for indigenous rights.

In late July 2016, several hundred indigenous people from all the subdistricts of Kapuas Hulu and fourteen Dayak sub-ethnic groups assembled in front of the district assembly in Putussibau to demonstrate their anger, desperation and concerns with how the district enforced the presidential demand on 'illegal' burning in a region where a large majority of the population was dependent on swidden agriculture to meet food demands (Pontianak Post 2016c; Equator Post 2016b). The demonstrators were led by six leaders of the District Forum for Customary Rights¹⁶, who represented the majority of local communities under threat by the new regulations. The forum was granted an audience with members of the local parliament (DPRD), police, military and district government representatives to discuss their concerns with how the police had handled the situation and to convey their demands for immediate solutions. The demonstration was triggered when 12 farmers were arrested by district police in the Silat subdistrict and imprisoned for four nights until customary leaders and the Alliance of Indigenous Peoples of Nusantara (AMAN¹⁷) negotiated their release. Other incidents took place in the Batang Lupar, Badau and Embaloh Hulu subdistricts where the local police arrested local farmers and were confronted by the family members for what was seen at a local level as unjust arrests.

¹⁵Presidential Instruction No.11/2015 on the Increased Control of Land and Forest Fires

¹⁶Forum Ketemenggungan Masyarakat Adat

¹⁷Aliansi Masyarakat Adat Nusantara

Many other communities were further visited by the police and military and were threatened not to start burning their fields.¹⁸

Communities were feeling restless and afraid to start burning their fields, an act so crucial for a good rice harvest and imperative for covering subsistence needs. The customary leaders were afraid that further arrests and heavy fines would trigger confrontations between police and desperate communities, and they argued that the way the district government was handling the presidential ban on burning was discriminatory against traditional farming techniques and cultural belief systems protected by both customary and national law. In the past, the district had seen violent confrontations between local communities and law enforcement agents (police and military) through acts of vigilante justice when customary laws had been ignored and communities felt treated unjustly by top-down regulations and laws from Pontianak or Jakarta (Eilenberg 2011a). The customary leaders argued that the direct and unnuanced enactment of the ban on burning would have heavy consequences for swidden communities whose whole economy, belief system and social structure for centuries had been built around the practice of swidden agriculture. For example, Iban life revolves around a rice cult where swidden farming is the crucial focal point.

It was further argued by community leaders that no alternatives and sustainable solutions were in place to secure the food security of communities if a total no-burn policy was enforced. People would simply starve. In fact, most swidden communities already adhered to the two-hectare plot maximum of swidden fields as stipulated in Law No. 32 of 2009 and had over the centuries developed intricate and controlled burning practices and techniques, '*ilaran api*', that were strictly regulated through customary law and rituals and prevented widespread forest and land fires. The spread of fire into adjacent fields or forest is considered a large disgrace and customarily brings serious penalties.

As asserted by one of the customary leaders, before the rule against burning could be enacted, there had to be a clear and sustainable alternative for swidden farmers to meet their food needs; converting swidden lands to large-scale agricultural plantation was not the solution. Such attempts had been introduced in the past and largely failed, as they were not suited to the local conditions both with regard to ecology and cultural beliefs. He continued that if all swidden farmers were arrested they would not fit in the prisons. The regulation would destroy the majority of communities if enacted without consideration of local conditions, and he stated, 'if we don't find a solution, the law will kill us, and we do not want to die because of this regulation from Jakarta'. In our district, 'the haze problem is not caused by the burning of fields but the opening up of new palm oil plantations; communities are once again becoming scapegoats'.¹⁹ He further stated that for centuries the following has occurred:

Dayaks of Kapuas Hulu have used fire to prepare and fertilize their fields without experiencing any haze problems (arguing that they were not responsible). Actually, we put a lot of effort

¹⁸Interview, Temenggung, Ukit Ukit, 9 May 2017. See also Pontianak Post (2016b).

¹⁹In 2015, the police charged seven palm oil companies in West Kalimantan with intentionally burning their land (Antara 2015). Despite Article 26 of the Plantations Law 18/2004 prohibiting the use of fire for clearing land in plantations, hot-spots are found in all key forest concession types in West Kalimantan. About 1.7 million hectares of peatlands are concentrated in the districts of Kapuas Hulu and Ketapang. Fires have occurred across land-use types, forest and non-forest areas and in palm oil and industrial plantation concessions as well (Someshwar, Melloy, and Patriana 2017).

into making firebreaks, and importantly the best burn for a successful harvest is a short burn with limited smoke. Government don't understand the complexity of our farming system or don't wish to understand.²⁰

In the audience, another enraged customary leader stood up and demanded a quick solution:

if communities are not allowed to burn their *ladangs*²¹ and prepare for the planting of hill rice, the (district) government needs to pay every month seven million rupiah per household to buy food for families and livestock. Alternatively, we will bring all our families and livestock to the district assembly to be fed.²²

The government officials present in the audience were stunned by the infuriated group of leaders and admitted that they could not provide a quick solution to the problem but mentioned mechanistic wet rice farming (*padi*) and organic farming as alternatives to burning. Nevertheless, they acknowledged that the district at the moment did not have the capacity or resources to develop such initiatives on a large enough scale. Several attempts to replace swidden agriculture with alternative non-burn practices of food agriculture have throughout history been tried by the district government (and in the past the Dutch colonial government), for example, to promote the much more labour-intensive and expensive wet rice cultivation. However, those attempts have largely failed due to lack of funds, know-how, maintenance and, not least, the unsuitable hilly agricultural lands.

The chairman of the district parliament further announced that the district government should not develop its own policy on burning without coordinating with the provincial and central government. He stressed the dilemma that the district on one side were obliged to follow the president's orders, and, on the other, they were obliged to protect local swidden communities which make up a large percentage of the population and prevent food insecurity. Criminalising communities is not a just solution he argued. However, several community leaders found the commentary unimpressive, mentioning that the local political elite for the last decade had continually pushed for swidden communities to develop their fallows into more productive and market-based agriculture, such as the cultivation of oil palm (Equator Post 2016a; Pontianak Post 2016a).

After the audience in the district capital, Putussibau community representatives travelled to the provincial capital Pontianak to present their case at the governor's office in Pontianak. During the meeting at the governor's office, the representatives acknowledged that the human and environmental consequences of large-scale land fires in the province were a major problem but argued that communities in Kapuas Hulu were not yet ready to adhere to the strict presidential regulation on burning, and no alternatives were in place. As such, the regulation should be enacted step by step and take into consideration local food security. While acknowledging that the district of Kapuas Hulu was not prepared for such strict regulations on burning, the provincial officials dismissed the notion that they had any authority to decide on or re-regulate a presidential regulation.

²⁰Interview, Temengung, Lanjak, 9 May 2017.

²¹Swidden fields are referred to as '*ladang*' in Indo-Malay and the term used locally when engaging in public discussions and with government officials. However, among the Iban themselves the term '*umai*' is used.

²²Interview, Temengung (customary leader), Ukit Ukit, 9 May 2017.

However, they neither condemned nor approved of the practice of communities that continued the traditional burning of their fields.

Finally, AMAN helped facilitate the demands of the community and the central government. The chairman of AMAN and the government officials conveyed the tentative solution that the communities for now would be allowed to open 2 hectares of land per family in the traditional way by burning. However, the burning of swidden fields should be part of a coordinated effort between communities and relevant government agencies like the District Disaster Management Agency. Communities should inform the agency beforehand in order to anticipate the burn and prevent everybody from igniting their fields at the same time and to put extra effort into preventing the spread of fire, etc. With the regional agreement to 'allow' the burning of 2 hectares under strict local government control, the practice of burning continued as a locally 'tolerated crime', at least for a while (Dressler et al. 2020). As argued by Ansori in his study of the 2015 forest fires in the neighbouring province of Central Kalimantan, low ranking officials often have shifting allegiances and are caught in the dilemma to choose between acting on local concerns or state policy (Ansori 2019).

While a regional preliminary solution to the swidden dilemma was locally settled in late 2016, already a year later the debate broke out again when the plantation lobby questioned the constitutional rights of swidden agriculturists.

Lobbying for agricultural expansion and modernisation

In May 2017, the Indonesian Association of Forest Entrepreneurs (APHI) and the Indonesian Palm Oil Association (GAPKI) filed a judicial review with the Constitutional Court in Jakarta related to several articles in Law No. 32 of 2009 on Environmental Protection and Management. Two of the articles submitted for review were article 69 paragraph 2 on indigenous peoples' rights to open two hectares of land for agricultural practices through burning²³ and article 88 on 'strict liability' that stipulates that plantation companies bear the responsibility for fires that break out in their concessions, whether they started them or not. Refly Harun, the lawyer for both business organisations, filed a lawsuit requesting that the articles be removed, arguing that the burning of swidden fields is the major source of fires and 'strict liability' is unfair to the plantation companies.²⁴ The judicial review was instantly questioned and came under fire by AMAN. The secretary general of AMAN stated that the efforts made by APHI and GAPKI by pinpointing indigenous peoples' agricultural practices as the main cause of forest fires were initiated in order to redirect focus away from large-scale plantation-initiated fires and to escape responsibility. AMAN requested that law enforcement agencies instead should crack down on corporations that actually violate laws of illegal burning and urged the Constitutional Court to reject the judicial review application filed by APHI and GAPKI as the lawsuit of the two business associations could weaken environmental protection and indigenous rights in Indonesia. This statement was further supported by the

²³Article 69 of Law 32/2009 prohibits 'opening of land by means of burning' with the exception of providing for burning using local wisdom: [l]ocal wisdom as referred to in this provision means the burning of land with the maximum size two hectares per head of family' (p. 11a).

²⁴Several reports have shown that the largest burned areas within concessions (palm oil and pulp) have not received any serious civil/administrative sanctions imposed (Greenpeace 2019).

Director of the Indonesian Forum for Environment, WALHI²⁵, Nur Hadayati, who claimed that

corporate powers like APhi and GAPKI continue to influence public opinion and shift the problem of forest and peat fires to indigenous and tribal peoples, by claiming that large-scale oil palm and timber plantations are not the cause of deforestation. . . . In fact, they are the responsible actors for human rights abuses in the event of forest fires and destruction of peat swamp ecosystems. The practices of corporate investments have violated the basic rights of citizens, the environment itself. (Saputra 2017)

According to WALHI, the majority of forest and land fires occur in the company concession areas, not in indigenous territories. In addition, the principle of protection of indigenous peoples' rights and customs is traditionally recognised by Article 18 B Paragraph (2) of the 1945 Constitution. Therefore, as argued by both AMAN and WALHI, when indigenous peoples are opening up land by burning, it is to exercise their traditional and customary rights as stipulated in the constitution.

On May 29, 2017, the Constitutional Court held a preliminary hearing on the lawsuit filed by GAPKI and APhi. During the hearing, the legal counsellor of the two business associations claimed that fires initiated by local farmers often spread to plantation concessions and unjustly these concessions were made accountable for the fires and loss of income. Throughout the hearing, the question of who is most responsible in the event of land and forest fires was debated by the legal counsellor and the judge. The judge mentioned that according to the principle of strict liability, as stipulated in article 88 of Law 32/2009, it is the concession holder who is the party most responsible and who needs to take fire precautions. He further stressed the importance of taking into account the customary rights of local communities and their 'local wisdom' in managing land and forest (Arumingtyas 2017).

Interestingly, just two weeks after the lawsuit was filed with the Constitutional Court, GAPKI and APhi on June 12 revoked their judicial review of Law No. 32/2009 on Environmental Protection and Management. They claimed that their initial plan was not to revoke the articles in the law as such but to initiate a larger discussion of its fairness that later might help improve the articles in the law to become more just. The chairman of GAPKI further claimed that all GAPKI members already had implemented a zero-burning policy (land clearing without burning) (Satari and Arumingtyas 2017) (see Figure 4).

Farmer solidarity – new agrarian movements

In the years after the arrests of swidden farmers and the failed lawsuit from the plantation lobby, tension between farmers and district government authorities continued despite the local settlement on the 2-hectare burning limit. The outside focus on the district put immense pressure on the district government to act, which gained traction in August 2019 when 43 hotspots were detected in the district by satellite imagery, the second highest level within the province. As a direct consequence, the Kapuas Hulu District government the same month was summoned to Jakarta to inform the president about the fire crisis (Hakim 2019). The pressure from the central government meant an

²⁵Wahana Lingkungan Hidup Indonesia.



Figure 4. Oil palm plantation in the Kapuas Hulu District (by the author).

increase in confrontations between police and swidden communities. Police were anguished by the prospects of losing their jobs if not making arrests and communities were anguished by heavy-handed police disrupting their farming practices. Communities throughout the district were puzzled by this steep increase in fire hotspots in August 2019. As clarified by a local farmer in the Badau subdistrict,

fewer people are now opening *ladangs* and planting hill rice because large sections of farmland have been bought up and licensed to palm oil plantations. Despite this we are told by the district official that the smoke problem is worse than ever and we should stop burning the traditional way. How can that be? Now the percentage of people who are farming by burning is decreasing, but forest fires and smoke are increasing. I think the main reason is companies who are clearing land by fire; this is illegal by law but cheap. Large corporations clear land by burning directly or indirectly, but the farming communities are blamed; we are scapegoated.²⁶

Another farmer in the subdistrict of Embaloh Hulu explained how his community for the last few years had consistently been intimidated. For example, in 2018 when the district police showed up with sub-machine guns during the village *gawai*²⁷ ceremony, bringing banners prohibiting burning and then ‘invited’ the villagers to have their picture taken beside the banners at gunpoint as a silent approval.²⁸

While sentiments in Kapuas Hulu were rising, the culmination of the burning dilemma was triggered by yet another incident in the neighbouring district of Sintang, which resulted in a large public demonstration and national media attention. In mid-September 2019, six Dayak farmers were arrested and imprisoned by the Sintang Regional Police, suspected of burning their fields unlawfully. The public prosecutor in Sintang demanded 6 months imprisonment plus a one-year probation sentence for the six farmers. As extra

²⁶Interview, farmer, Badau, 2019

²⁷Iban harvest festival.

²⁸Interview, farmer, Embaloh Hulu, 2019.

petrol on the fire, the Minister for Politics, Law and Security Affairs, Wiranto, during a press conference at his office in Central Jakarta on Friday September 13, 2019, was cited as having said that the government saw swidden cultivators as among the main perpetrators of land and forest fires in Kalimantan (Ruqoyah and Firdaus 2019). Several civil rights groups, farmers associations and Dayak indigenous organisations from both Sintang and Kapuas Hulu districts and the rest of the province were enraged by Wiranto's statement and felt that this was another example of the central government unrightfully targeting swidden farmers and demanded that the six farmers be freed without further prosecution and that Wiranto either modify his statement or pull it back. Both the chairperson of the Sintang District Dayak Council (DAD²⁹) and the coordinator of the Support Movement for Swidden Agriculture in West Kalimantan³⁰ immediately announced in the local media that the Sintang district government should 'free the six farmers without any conditions' and that the regional government instead should take a firm stance against plantation companies which have been proven to burn forests and land in both districts. They added that the regional government must be consistent in implementing the regulations (Perbup No. 57 of 2018) on procedures for clearing land and not only target swidden farmers (Barus 2019).

The arrest quickly evolved into large demonstrations attracting thousands of participants in West Kalimantan and later in December spread to the neighbouring province of Central Kalimantan where Dayak farmers' groups delivered a 13-point statement to the regional and central governments that, among other things, stipulated that law enforcement officers should stop criminalising traditional swidden cultivators (Gara 2019).³¹ Within a few months, the arrest of the six farmers evolved into a mass movement in support of swidden communities and indigenous farmers' rights. During demonstrations in both the provincial capital Pontianak and the district of Sintang and Kapuas Hulu, demonstrators flagged posters encouraging the freeing of the swidden farmers under the hashtags # *save-peladang* (save swidden farming), # *bebaskanpeladang* (free the swidden farmers), # *Peladang-bukanpenjahat* (swidden farmers are not criminals) and # *peladangpejuangkehidupan* (swidden farming, warrior, life), which spread across all social media platforms.

The regional government in Sintang and the provincial government in Pontianak were under immense pressure from a large spectrum of civil society groups that had coordinated around the cause. During a seminar in Pontianak on the fire and haze problem, the governor of West Kalimantan announced that he did not agree with the criminal prosecution of small-scale farmers but could not interrupt a criminal investigation. Large companies, he said, were the prime group responsible for the intense smoke in 2019, and the biggest contributor to the haze in West Kalimantan came from fires on the company's concession land.³² Based on satellite imagery, fires on company concessions cover hundreds of hectares. He stipulated that regulations require that all plantation companies have firefighting equipment and personnel and if companies did not adhere to these regulations, he would revoke plantation permits. He further mentioned that district governments often protected

²⁹Dewan Adat Dayak

³⁰Gerakan Peladang Kalimantan Barat

³¹See: <https://youtu.be/fmuE3Dpnj2M>, <https://youtu.be/4FKALPre7Qg>, <https://www.youtube.com/watch?v=BBPrWKxGMuw>

³²Until September 2019, the provincial government in West Kalimantan had warned 103 plantation companies against burning land, and 15 of these were sanctioned not to use their land for three to five years (Pahlevi 2019).



Figure 5. Dayak youth at cultural rally in the provincial capital Pontianak (by the author).

plantation companies by providing false information to the police concerning the location of land fires and by blaming the wrong people (Pahlevi 2019) (see Figure 5).

The trial of the six farmers that took place on March 9, 2020, became a large spectacle symbolising the fight for indigenous rights and self-autonomy, attracting thousands and a large array of groups from traditional farming associations and indigenous rights groups to more confrontational Dayak youth groups like the Farmers' Children's Solidarity Alliance (ASAP³³) wearing traditional clothing, swords and red war bandanas (Wardhana 2020). The anxiety of district governments was evident in the deployment of nearly 3000 military and police personnel to secure the hearing. Later that day, the six farmers were found not guilty and acquitted of all charges (Pahlevi 2020; Fatria 2020; CNN Indonesia 2020; Pujianto 2020). The chairperson of the West Kalimantan Traditional Farmers Association immediately said that the judges had decided with conscience and respected the traditional rights of indigenous peoples in the province. While portrayed as a milestone verdict by civil society groups, several other farmers arrested for similar offences are still awaiting trial in several neighbouring districts like Kapuas Hulu. Despite the increased focus on traditional farming strategies and community rights, swidden farmers in West Kalimantan and the rest of Indonesia are still struggling with the burning dilemma – create swiddens and chance arrest or comply with the ban and risk a food crisis.

Conclusion: emerging enclosures and privatisation

This paper has considered the multiple causes and effects of large-scale land and forest fires in Indonesia through the case of swidden agriculture. I have shown how discourses

³³Aliansi Solidaritas Anak Peladang

of blame once again have surrounded the more vulnerable sections of the Indonesian society, small-scale traditional swidden farmers. As discussed, swidden agriculture has long been considered archaic and anti-development by government and private companies and many myths of this agricultural practice have been nurtured over centuries. The prohibition of traditional techniques of swidden agriculture and encouraging 'modern' techniques (*padi* and plantation/monocrop agriculture) have for long been part of frontierisation strategies of modernisation and government control. However, as argued by Dove (1983, 96),

The policies supported by the myths also have not benefitted the greater society as a whole. Rather, in each case it appears that only certain groups or classes have profited by the myths, these being those groups with the most political and economic capital, and the greatest ability to direct and benefit from large-scale, capital-intensive, resource exploitation.

The paper shows how the force of government pressure has waxed and waned according to the changing political setting and global discourse on climate and the environment. It discusses the large assemblage of forces at play on the Kapuas Hulu forest frontier – from the expansion of large-scale agricultural development and environmental conservation efforts to discourses of 'underdevelopment' – that are forcing processes of transformation of enclosures of swidden lands into private monocrop plantations. The study discusses the constant encroachments by plantation companies on community lands and how fire and burning are appropriated as a tool to free up more land for investment through intricate systems of patronage and collusion. Environmental regulations, like the central government's fire ban, have further accelerated the existing smallholder transition from swidden farming and other livelihoods towards large-scale commercial agriculture by putting stress on communities and criminalising traditional practices. As Li reminds us, to turn land into 'productive use requires regimes of exclusion that distinguish legitimate from illegitimate uses and users, and the inscribing of boundaries through devices such as fences, title deeds, laws, zones, regulations, landmarks and story-lines' (2014b, 589).

However, new coalitions and alliances are emerging out of the haze. Swidden communities and their allies in AMAN and WAHLI are not passively accepting the views of the government and private companies and are actively resisting the criminalisation of swidden practices and their alleged contribution to the haze problem. AMAN and WALHI stress the customary rights to practise swidden agriculture as stipulated in the national constitution both in regard to community subsistence and also cultural value. The material cultural practice of swidden agriculture is, in the case of the Iban and other Dayak groups, intimately interconnected with social order and ritual life. Swidden agriculture is seen by many Dayak communities as the cement that solidifies community solidarity and interdependence in Kapuas Hulu. Through the new alliances across provincial boundaries and ethnic divides, the fight to preserve swidden agriculture has become a symbol of injustice and not least the long process of dispossession experienced by indigenous communities in the uplands of Kalimantan and elsewhere. Many of the new support groups that have emerged as a result of the swidden discourse consist of (rhetorically militant) youth groups that celebrate a revival of Dayak authority and a common Dayak identity.

Compared to the political landscape under the authoritarian president Suharto, local governments now carefully need to balance regulations from the centre with local

realities to prevent conflict. The Kapuas Hulu case reveals the complex assemblage of actors, overlapping agendas and competing interests that are involved in the burning dilemma. It further shows the consistencies in government policy towards swidden communities and land development priorities. Such processes of frontierisation through the commodification of land for investment have been nurtured through decades of resource extraction regimes and fuelled by the frontier trope of empty land and unlimited resources that offers little room for smallholders' livelihood security and subsistence agriculture. Few attempts have been made to support sustainable small-scale agriculture in the district and thus provide viable alternatives to swidden practices besides converting land to large-scale plantation development. Indeed, the agrarian transition in Kapuas Hulu, as elsewhere in the province, is a push towards large-scale land conversion to monocrop plantations, and, for the moment, fire remains the cheapest and most popular method to prepare land for agriculture on both a small and a large scale.

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ORCID

Michael Eilenberg  <http://orcid.org/0000-0003-0051-7424>

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Michael Eilenberg is an Associate Professor of Anthropology at Aarhus University. His research focuses on issues of state formation, sovereignty, autonomy, citizenship and agrarian expansion in frontier regions of Southeast Asia. He is the author of *At the Edges of States* published by KITLV Press/Brill Academic Publishers in 2012 and together with Jason Cons co-edited the volume titled *Frontier Assemblages: The Emergent Politics of Resource Frontiers in Asia* for Wiley's Antipode Book Series in 2019. His recent articles have appeared in *Asia Pacific Viewpoint*, *Identities: Global Studies in Culture and Power*, *Journal of Borderland Studies*, *Journal of Peasant Studies*, and *Modern Asian Studies*.