



Climate change and land: Insights from Myanmar

Saturnino M. Borrás Jr.^{a,b,*}, Jennifer C. Franco^{b,c,*}, Zau Nam^d

^a International Institute of Social Studies (ISS) of Erasmus University Rotterdam, Kortenaerkade 12, 2518 AX The Hague, Netherlands

^b College of Humanities and Development Studies (COHD) of China Agricultural University, Beijing, China

^c Transnational Institute (TNI), PO Box 14656, 1001 LD Amsterdam, Netherlands

^d Metta Development Foundation, Yonegyi Street, Block 1 Lashio, Shan State, Myanmar



ARTICLE INFO

Article history:

Accepted 24 December 2019

Available online 28 January 2020

Keywords:

Climate change and land

Climate change politics

Land rush

Asia

Myanmar

ABSTRACT

Climate change and land are linked – politically. Climate change politics intersects with the global land rush in extensive and complex ways, the impacts of which affect villagers profoundly. These interconnections occur in direct and indirect ways and are often subtle, but that does not make them less important; it only makes the challenge of governing such dynamics in the interests of marginalized working poor people even more difficult. In this paper, we focus our analysis on indirect and subtle interconnections. Examining empirical cases in Northern Shan State in Myanmar, we conclude that these interconnections occur in at least three broad ways, in which climate change politics can be: (i) a trigger for land grabbing, (ii) a legitimating process for land grabs, or (iii) a de-legitimizing process for people's climate change mitigation and adaptation practices. These interconnections in turn stoke old and provoke new political axes of conflict within and between state and social forces.

© 2020 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Climate change politics and the global land rush

The contribution in this paper lies primarily in trying to deepen the concept of 'green grabbing' as formulated by Fairhead, Leach, and Scoones (2012)¹ by exploring the indirect and often invisible interconnections between climate change politics and global land rush. Such interconnections may be subtle and may occur through stealth, but this does not make them any less important; rather, the challenges of governing such social dynamics become even more complex and difficult (Franco & Borrás, 2019). This paper also takes a glance at and speaks to the IPCC 2019 Report on 'Climate Change and Land' (IPCC, 2019). The report, which explicitly links climate change and land, is a welcome addition to the literature and public debate. However, politics and power, inequality and redistribution, are not appropriately and significantly addressed in the report. Who gets to decide which natural resources are mobilized for what kind of climate change mitigation and adaptation measures, why and how, for how long, and with what implications for 'agrarian justice' and

'climate justice' are questions of politics and power that are fundamental to both climate change and land – separately and together. We argue that climate change and land are linked – politically.

Our analysis proceeds from four basic theoretical assumptions. Our first assumption is that the climate crisis and the global land rush share a common key driver: global capitalism. This brings us to two closely interrelated perspectives. On the one hand, we follow Moore's position on the origins of the current ecological and climate crisis based on his theory of the Capitalocene, which is to be "understood as a system of power, profit and re/production in the web of life" (Moore, 2017, p. 594; see also Malm, 2016). On the other hand, we understand that the converging multiple crises around food, energy, environment, climate and finance during the past couple of decades opened up new frontiers for further profit-making for the world's corporations by exploring new and intensified forms of extractivism affecting a wide range of natural resources – land, water, forests and seas (Harvey, 2003; Brockington & Duffy, 2010). Extractivism represents a rare opportunity for central states that are saddled with financial difficulties; they see the commodity boom as a fast and convenient way out of fiscal crisis that dovetails easily with their permanent interest in territorialization and state-building processes (Wolford, Borrás, Hall, Scoones, & White, 2013; O'Connor, 1998). In this sense, the climate crisis and the global land rush are intimately connected, sharing the same umbilical cord in global capitalism.

* Corresponding authors at: International Institute of Social Studies (ISS) of Erasmus University Rotterdam, Kortenaerkade 12, 2518 AX The Hague, Netherlands.

E-mail addresses: borras@iss.nl (S.M. Borrás Jr.), jennycfranco@tni.org (J.C. Franco).

¹ The green grabbing literature has, since 2012, been expanding, and we have benefited from such an emerging scholarship. One subset of this literature is dedicated to REDD+ and dispossession; see, for example, Carter et al. (2017) and Larson et al. (2013).

Second, this paper does not deal with 'climate change' per se, but climate change politics. We define this as the dynamics operating in the spheres of social structures, institutions and political agency – namely, social relations; policies, treaties, laws, procedures, norms; projects, programs, narratives, ideas, advocacies, mobilizations and social movements, memories, rumors, or gossip – separately and collectively, among and between different social classes and groups within the state and in society that set and shape the meanings of climate change, its causes and consequences, how it can be addressed, by whom, where and when. The usual focus of public debates and academic research is formally constituted climate change policies or projects that are branded by elite state and non-state entities as climate change mitigation or adaptation measures. These policies or projects are important subjects to study, but they are not the only ones. The politics of natural resources may be altered dramatically, caused not by climate change, but by rumors, speculation, or spectacle linked to purported measures to address climate change. Our concept allows an observer to politicize and historicize analysis, by placing power-laden social processes, historical evolution of climate change mitigation and adaptation, and social class relations under the spotlight, and critically questioning dominant binaries and terminologies, such as (following Ribot, 2014), 'vulnerability' and 'oppression'. As such, climate change politics range from progressive to regressive politics. In this paper, by 'progressive climate change politics' we mean those social dynamics that shape the meanings of climate change, its causes and consequences, how it can be addressed, by whom, where and when in ways that advance 'agrarian justice' and 'climate justice', separately *and* together. A broad definition of agrarian justice is used in this paper, that is, "the agenda of carrying out a sense of fairness for historically oppressed social classes and groups in agrarian societies" (Franco & Borrás, 2019, p. 197). By 'regressive climate change politics' we refer to social and political processes that block, undermine or reverse advocacy for or gains in progressive climate change politics.

In this paper, we will focus narrowly on the regressive forms of climate change politics. In this light, it might be possible that regressive forms of climate change *politics* could potentially cause significant extent of displacement among people, and thus require careful empirical investigation.

Third, although global media interest in the global land rush has waned in recent years, and some of the commodity booms (which are among the drivers of the global land rush) may have come to a halt in many places, land deals may have remained significant a phenomenon and issue in most societies in the world today (see Schoenberger, Hall, & Vandergeest, 2017; Zoomers, Gekker, & Schäfer, 2016). Land deals that were pursued may have already resulted in important socio-economic, political and ecological changes in affected communities. Meanwhile, land deals that have been cancelled remain important to study (Kaag & Zoomers, 2014). Land deal withdrawals may not necessarily undo the social process of land dispossession that they have already kick-started. When the Procana sugarcane project involving 30,000 ha of land in southern Mozambique was cancelled, the government did not return the land to the displaced villagers, but instead started to look for new investors.

We generally use the term 'land rush' in this paper, which is a more inclusive concept that includes corporate land deals as well as non-corporate, everyday forms of land acquisition by an assortment of land brokers that, separately and together, redefine the general pattern of land control. We are aware that the term 'land grabs' has a lot of baggage that comes with it, and we tend to use the more encompassing term 'land rush' or the narrowly framed term 'corporate land deals' in this paper (see Edelman et al., 2013). In specific situation where we refer to land grabs, corpo-

rate or otherwise, we build on the concept of 'land control' framed and developed by Peluso and Lund (2011), and put forward the notion of 'control grabbing', using the definition by Borrás et al.:

the capturing of control of relatively vast tracts of land and other natural resources through a variety of mechanisms and forms that involve large-scale capital that often shifts resource use orientation into extractive character ... whether for international or domestic purposes, as capital's response to the convergence of food, energy and financial crises, climate change mitigation imperatives, and demands for resources from newer hubs of global capital. (Borrás, Kay, Gomez & Wilkinson, 2012, p. 405).

This approach broadens the discussion in at least three ways, taking it: (i) beyond the initial food crisis-centric analysis of much of the scholarly literature and media coverage; (ii) beyond the initial land-centric analysis to problematize grabbing of water, seas, forests and other resources such as carbon; and (iii) beyond foreign actors to include analysis of domestic corporate actors and nation-states (Wolford et al., 2013). The terms 'land rush', 'land deals', and 'land grabs' (as defined here) enable us to flexibly explore the interconnections between climate change politics and land rush more effectively.

Fourth, violent conflict and dynamics of agrarian change have, historically, been entwined with one another in many societies that have important agrarian sector, and such dynamic processes are largely shaped by politics of class and relevant social identities (Cramer & Richards, 2011). In the era of climate change, environmental and conservation politics have seen rising incidence of violent conflict over natural resources (forest, water, land) (Verweijen & Marijnen, 2018; Martínez-Alier, Temper, Del Bene, & Scheidel, 2016). Bringing agrarian political economy and political ecology lens together does lead us to see important changes in the axes of political conflict, where classic agrarian conflicts and emerging environmental and conservation conflicts have become increasingly entangled. The web of social forces implicated in such conflicts are necessarily altered, offering both further threats of regressive politics, as well as newer opportunities for possible counter narrative and mobilizations by ordinary people.

Our argument proceeds from these four basic theoretical assumptions, with empirical material from Northern Shan State (NSS) in Myanmar. The empirical materials for this paper were gathered during the period 2014–2018 through national-level workshops and focus group discussions (FGDs) as well as analysis of government documents, 12 village-level FGDs, key informant interviews, a survey questionnaire, as well as participant observation. Two of the authors do not speak the local language, and translation was provided, while the third author is a local of NSS. Two of the authors visited Myanmar multiple times during this period, with each visit ranging from two to six weeks; they also visited the communities implicated in the three cases that are examined here, each time ranging from a few days to a week, while the third author lives and works in Myanmar, and specifically in NSS, and had longer and extended stays in the communities studied. The names of our key informants and villages have been anonymized for security reasons.

2. Climate change politics and the land rush: Teasing out subtle interconnections

In this section, we will tease out, conceptually, three broad types of subtle interconnections between climate change politics and land rush, namely, (i) climate change politics as a context for land rush, (ii) climate change politics as legitimating processes

for land rush, and (iii) climate change politics as de-legitimizing processes for people's mitigation and adaptation practices.

2.1. Climate change politics as a context for land rush: looking at and through biofuels and flex crops

Well-intentioned climate change policies or programs may, under certain conditions and in combination with other socio-economic and political factors, contribute to ushering in a land rush, directly or indirectly. This gets played out, for example, in the context of 'flex crops'. Following Borras, Franco, Isakson, Levidow, and Vervest (2016, p. 94), flex crops and commodities are those that have multiple uses, that is, food, feed, fuel, fibre, industrial material, and so on, that can be flexibly interchanged while some consequent supply gaps can be filled by other flex crops. Moreover: the forms of flexible-ness and multiple-ness of these commodities could become more profitable through several means: changes in market prices, policy frameworks, or technology. Finally, the economic viability of this commodity depends on low-cost feedstock, which can be achieved through diverse means: mining nature, super-exploitative labor, more intense market competition, or land grabs. The currently most popular flex crops are palm oil, sugarcane, corn, and soya. A diversified product portfolio is a key feature of flex crops enabling investors to better anticipate and nimbly react to changing prices, that is, exploit price spikes or withstand price shocks. Borras et al. elaborate (ibid.):

When the actual market for biodiesel is not there yet, sell palm oil for cooking oil, while waiting for, or speculating on, a more lucrative biodiesel market that has yet to emerge. Or at least sell palm oil while wishing for a more profitable scenario to happen. Meanwhile, one can already build a storyline about this projected scenario to jump-start business undertakings, e.g. to raise investments, lure investors, entice governments, persuade affected communities and orchestrate favourable media attention to achieve some of these requirements.

What is being argued, among others, are: (a) that climate change politics is an important context for the rise of contemporary flex crops wherein most of the latter are partly linked, directly or indirectly, to climate change politics, and (b) that while biofuels cannot be held solely accountable for the expanding cultivation of its feedstocks (which are also used for other sectoral commodities), it also cannot completely separate itself from the *global flex crops complex* – the global web of social relations in property, land, labor, finance and technology, as well as the institutions that maintain such a web, in the production, circulation and consumption of a commodity. Biofuels and flex crops – and the production, distribution and consumption of these commodities – are *intertwined*, and are *inherently* so, in the current global context. Thus, climate change politics should not be linked solely to a crop that is explicitly and formally produced as a biofuel. A strictly biofuel crop (i.e. one with no other commercial use) does not actually exist; the only potential crop in this category, jatropha, was hit by a very quick boom–bust cycle. In other words, in the world of agricultural commodities, climate change politics means flex crops.

We referred above to the *global flex crops complex*. In this paper, we mean it to be a *complex* because it necessarily involves multi-sectoral and multi-level interlocking social relations around the spheres of production, distribution, exchange and consumption. There is no single commodity produced, distributed and consumed from a specific crop and no single 'value chain' or 'commodity chain'; rather, the commodities that are produced, distributed and consumed are plural, and multi-sectoral rather than sectoral. The notion of a 'value web' (Virchow, Denich, Kuhn, & Beuchelt,

2014), or 'commodity web', is thus more appropriate than the traditional notion of 'value chain' or 'commodity chain'. A local corn for feed-only production has to be seen in the context of its entanglement in the web. It is *global* in scope because the net increase in the area harvested, or production output of a flex commodity, or exchange value and commodity prices, are the aggregate outcomes of the production and consumption restructuring of the commodity, regardless of the unevenness of such restructuring sectorally, geographically and temporally. For example, soya production fell dramatically in China at the same time that the production and consumption of soya in China and worldwide increased exponentially. The current global flex crops complex emerged because of various factors related to changing diet and consumption patterns, investment priorities for finance capital, and so on – including climate change politics. Simply put, climate change politics partly resulted in the rise of the global flex crops complex, while the latter partly activated and enabled the former. They are thus not just connected to each other, they are dialectically linked: one cannot exist without the other. And because of the character of flex crops as both a *complex* and *global*, we have to see sectoral production or consumption not in isolation from, but in relation to, the global complex. In concrete terms, this means that a Cambodian local enclave of sugarcane production mainly for sweeteners belongs to and is shaped by the same *global* flex sugarcane complex as a Brazilian local enclave of sugarcane production mainly for ethanol (McKay, Sauer, Richardson, & Herre, 2016).

Globally, we see a general trend of increased production in flex crops; despite hiccups in many large-scale biofuel land deals, and falling prices of fossil energy, global biofuel production has continued to increase. Biofuel production grew from 37,429,000 tons in 2006 to 84,121,000 tons in 2017, with 11.4% growth per annum during that period (BP, 2018, p. 45). The area harvested for these crops also increased over the past three decades. Sugarcane accounted for 16.3 million ha in 1987, 19.5 million ha in 1997, and 26 million ha in 2017. We see a similar pattern in other crops for the same years (1987, 1997, 2017): oil palm (fruit), from 5.3 million ha, to 9.2 million ha, to 21.3 million ha; maize, from 130 million ha, to 140.7 million ha, to 197.2 million ha; and soya, from 52.5 million ha to, from 67 million ha, to 123.5 million ha.²

There are two key points to convey here. First, while there are various factors behind the production increases of these crops in the past three decades, there is no doubt that climate change politics in the form of biofuels blending mandates passed in many countries – especially in large oil-consuming areas such as the United States and European Union – played a major role. Second, it is the 'multiple-ness' and 'flexible-ness' of these commodities (what Goodman, Sorj, & Wilkinson, 1987 call their "substitution character": e.g., rapeseed oil can be converted from food use to biofuel, and its original use replaced by palm oil) on a major commercial scale, that has become the defining feature of these global flex crops. The phenomenon of flex crops deepens the notion and complicates the web of Indirect Land Use Change (ILUC). It is in the context of climate change mitigation and adaptation-inspired ILUC that this paper tackles the issue of the expansion of sugarcane and corn in Myanmar that has converted community forests and areas dedicated for centuries to shifting cultivation into sedentary corn and sugarcane monoculture. ILUC and flex crops go hand in hand, and while climate change politics is not the sole context for such a phenomenon, it is an important one.

It is worth remembering that one of the causes of the 2007–08 global food price spike was the redirecting of much of the US corn supply from its conventional usage for food and animal feed to

² All calculated from FAO Statistics ('Crops') online on March 1, 2019: see <http://www.fao.org/faostat/en/#data/QC>.

ethanol, causing far-reaching and multi-directional ripples inside and outside the United States (Gillon, 2016). This has in turn driven many traditional bulk buyers of the US corn supply (for food/feed) into alternative production and distribution arrangements in which they can control production and distribution, thereby ending their reliance on the United States. China is one of the countries that took seriously the challenge of restructuring the global flex corn complex; it started to push for production and distribution under its own tight control. But instead of its traditional production inside China, corn production crossed border into Myanmar, partly because of the relative rise of other crops inside China that rendered corn production less financially competitive as compared to sugarcane, tobacco, or macadamia nut cultivation.³ The use of contract growers along its border, for example in Myanmar, is part of this strategy (Woods, 2015). The rise of the global flex corn complex—its context, character and implications—is not caused solely by climate change politics as there are multiple other causes for this (changing dietary preferences in middle income countries, and so on), although it is partly linked to the latter (and thus, to the debates around ILUC). It is no accident that the dramatic expansion of corn production in Myanmar's NSS began when the US changed its corn policy to focus on ethanol. Nor was it a coincidence that the land rush in NSS to open sugarcane production corresponded with the expansion of the global flex sugarcane complex partly in the context of ethanol consumption (McKay et al., 2016).

2.2. Climate change politics as a legitimating process for land rush

'Green grabbing' (Fairhead et al., 2012) can unfold in two broad ways. In the first way, land deals are seriously and actively pursued for purposes that claim to serve the goals of climate change mitigation or adaptation, such as land deals for biofuels, wind farms, forest conservation projects such as REDD+ (Carter et al., 2017; Larson et al., 2013), and so on. One of the most recent subsets in this broad theme is the conceptual and policy framing of 'Climate Smart Agriculture' (CSA) as inaugurated by the World Bank (World Bank, 2016) and the FAO (FAO, 2013). The three pillars of CSA are increased productivity, increased resilience and reduced emissions. The official CSA documents are completely silent on questions of redistribution and equity (Taylor, 2018; Newell & Taylor, 2018). Critical scholarship is quite developed in this area, founded on the basic critique developed around the concept of green grabbing (Fairhead et al., 2012).

The second way involves large-scale land acquisitions by states and corporations that are clearly aimed at mega development projects for industrial and commercial purposes, without any pretension about environmental goals. Large hydropower dam projects are an example. The link to climate change politics is that these mega projects seem to be relabeled, discursively, as climate change mitigation or adaptation initiatives, perhaps possibly partly as a counter-narrative and maneuver against those who resist or protest against such projects. For example, mega dam projects have been among the most controversial and most resisted state-sponsored and corporate-led mega projects for many decades, worldwide. The purposes for such dam projects are straightforward: they are corporate and industrial. Many dam projects stalled or were withdrawn because of popular protests, but in recent years, large-scale hydropower dam projects have been resurrected in the broader context of what Mehta, Veldwisch, and Franco (2012) call "water grabbing" (see also Baird & Barney, 2017; Lamb & Dao, 2017)—but this time they are usually framed as climate change mitigation and adaptation projects.

Another example of this counter-narrative is the proliferation of industrial monoculture tree plantations worldwide in which timber, pulp and paper corporations clear-cut forests in order to install artificial, industrial monoculture forests of eucalyptus, pine, and other fast-growing trees, as well as commercial-agricultural tree plantations. The ensuing monoculture plantations can then be framed as 'sustainable forest', with the potential for the owners and governments to claim compliance to Clean Development Mechanism (CDM) agreements. This is exactly what happened in Prey Lang forest in Cambodia involving a Korean company, as documented by Scheidel and Work (2018). Monoculture eucalyptus and pine plantations, as well as rubber plantations are all included in the controversial FAO definition of 'forest' (FAO 2015). In China, eucalyptus and pine, as well as macadamia and walnut tree plantations, for example, are all officially categorized as 'forest'.⁴ 'Forest' land use classification is, in turn, the most common item reported by governments as compliance to international agreements and treaties on climate change mitigation, as demonstrated, for example, in the Myanmar government's Climate Change Strategy and Action Plan (MCCSAP) 2016–2030 (MoNREC, 2017). Another potentially problematic relabeling which may not be widespread, at least not yet, is when straightforward industrial monoculture plantations and the irrigation infrastructure that serves them are suddenly repackaged as climate change 'adaptation' projects, as in the case of an irrigation project and a cassava plantation in Cambodia examined by Hunsberger, Work, and Herre (2018).

This second way of legitimating green grabbing often manifests in very subtle, fluid and indirect forms, where the concrete links between climate change politics and land deals are not obvious and straightforward. Indeed, when a government claims that a hydropower project is now billed as a climate change mitigation and adaptation project, somehow the burden of proof to demonstrate that it is not lies on the side of those who oppose the project. Again, for example, in Myanmar government's Climate Change Strategy and Action Plan (MCCSAP) 2016–2030 (MoNREC, 2017) in addition to increasing forest cover, the other big item in it is the development of renewal source of energy mainly through hydropower dam. And with the increasing popularity of CSA, virtually everything can be claimed to be done in the name of climate change mitigation and adaptation.

2.3. Climate change politics as a de-legitimizing process for potentially relevant mitigation and adaptation practices

The flipside of the discussion above is that under certain conditions, climate change politics can be used as a *de-legitimizing* narrative against mitigation and adaptation practices of ordinary communities and villagers. For example, a traditional village community forest that is not officially labeled and recognized by the government or powerful NGOs as a conservation or climate change mitigation project can be easily expropriated and reallocated to an agribusiness company for cash crop plantation regardless whether local communities were arguing that such community forest is important to them. A long-standing dominant narrative against certain agrarian production systems, specifically peasant farming and shifting cultivation, is that they are '*economically inefficient*' in relation to the use and control of scarce resources—land, forest and water. Shifting agriculture, in which much of the land is held fallow for long periods of time, and in which production is assumed to be significantly oriented towards a subsistence ('low exchange value') village economy, is purportedly *inefficient* because land and water, as scarce resources, as well as labor, are under-

³ Based on the research fieldwork by one of the authors in Yunnan in early 2019, and in Guangxi in 2016.

⁴ Interview with forest department officials in a prefecture in Yunnan province, March 2019.

utilized. In the view of mainstream economics, land can be used more efficiently and productively when commoditized. Where this happens, land is seen as a commodity like no other because it is also key to accessing other resources: water, forest, minerals and labor. This is the overarching assumption of the 2008 World Development Report, *Agriculture for Development* (World Bank, 2007). The mainstream new institutional economic understanding of what has been happening with the current global land rush, and what is to be done with it, is also premised on this fundamental assumption about efficient use and allocation of natural resources, where the principal consideration for resource reallocation is about “yield gap” (Deininger & Byerlee, 2011). The narratives around the ‘economic inefficiency’ of particular agrarian production systems have been powerful, and have driven, justified or legitimized cycles of dispossession in many rural communities, worldwide and historically.

Another old, and overlapping, narrative that similarly projects a negative picture of these agrarian production systems claims that they are ‘ecologically destructive’. Past governmental campaigns to stop shifting agriculture have been founded on this claim. With specific reference to shifting agriculture, van Vliet et al. (2012) offer a comprehensive, global review of trends in land-cover change in swidden agriculture, and note its significant decline worldwide. They find that, “In many countries, the negative perception of swidden has been translated into policy documents, laws, and practices, ranging from the tagging of swidden cultivators as ‘lower quality people’ in Southwest China to ‘isolated backward populations’ in Indonesia ... and to ‘pyromaniacs’ in Madagascar” (van Vliet et al., 2012, p. 422). In Southeast Asia, they note that, “Throughout the region, swiddeners have been marginalized by laws that criminalize their practices, land laws that restrict the use of land to permanent agriculture or forestry, and the expansion of forest departments and conservation organizations, which sometimes evict swiddeners from lands under their control through resettlement” (ibid.). This is confirmed by the review study by Dressler et al. (2017) who note, for the same region, that, “In most cases, long-standing negative assumptions about swidden agriculture have led to its vilification and criminalization ... giving rise to punitive policies that have significantly impacted upon livelihoods and landscapes in the uplands” (Dressler et al., 2017, p. 307). In its recent document outlining its commitment to COP 2015, the Myanmar government specified the key source of the problem it wanted to focus attention to. It says:

Although the [agricultural and forestry sector] supports a large number of the population, annual GHG emissions are about 198 million tonnes CO₂ from deforestation, and 844,000 tonnes from forest degradation. Forest fires emit about 40 million tonnes CO₂ a year (MONREC, 2017, p. 20)

Reference to deforestation and forest degradation here can be interpreted, plausibly, as mainly referring to swidden agriculture because forest conversion to monoculture plantations is a top development priority of the government. Also because reference to deforestation and forest degradation is paired with reference to forest fires.

Either one of these narratives of ‘economically inefficient’ or ‘ecologically destructive’ agrarian production systems is viewed as more than enough to justify taking access to and control over scarce resources (land, water, forest) away from ordinary villagers (in swidden agriculture, pastoralist or artisanal fishing communities). What we are witnessing in the era of climate change politics and the global land rush is *the convergence of the two narratives*, which, judging from recent trends, could be far more politically explosive in the sense that it could result in more extensive and

fast-paced transformations of biodiverse spaces into large swathes of monoculture plantations or problematic big conservation projects that expel forest dwellers and users from the forest or at least prohibit certain access and use by the villagers (Borrás & Franco, 2018; Franco & Borrás, 2019). The studies by van Vliet et al. (2012) and Dressler et al. (2017) found that economic factors, i.e., market penetration of the rural communities, played a critical role. However, extra-economic coercion exerted by the state might have played an even greater role in the decrease of swidden agriculture: this manifests in various ways including denial of formal land claims to those who practice swidden agriculture, or the flip side of this, forcing the issue of individualized private land titles upon swiddeners. The net effect of the latter is not only to convert the production system to sedentary agriculture using chemical and other commoditized production inputs, but at the same time, to free up a large part of the shifting agriculture space that states can then either transform into big conservation projects, or reallocate to enterprising individuals or corporations. This argument is validated by the review study of Dressler et al. (2017, p. 304) as they conclude: “[I]n cases where tenure is increasingly privatised ... there is greater likelihood of intensification and investment in annual crops. Once separated from the forest commons typically in the uplands, the rise in individualised tenure renders former swidden lands alienable to others through formal or informal market transactions”. The swidden agriculture situation also unfolds in the vast pastoralist communities worldwide, partly manifesting in the campaign to transform mobile pastoralism to either sedentary agriculture or ‘ranching’, or a combination of the two. This is one of the most potent ways through which the state has inserted itself into the epicenter of the contemporary global land rush – not as an arbiter of land deal conflicts, but as a key actor in land-deal making, as Levien (2013), Moreda (2017) and Wolford et al. (2013) have argued in different contexts. Climate change politics, in some instances, have become a convenient narrative to selectively de-legitimize some land uses and users.

3. Between land rush and climate change politics in Northern Shan State: Some resource extraction projects

3.1. Climate change politics and land rush in Myanmar

The 2010 elections in Myanmar saw a partial transition towards a quasi-civilian regime and economic liberalization, and the 2016 national elections marked the widening and deepening of economic liberalization, while the military remains entrenched within the state and in society. Extractivist development, broadly cast, has been the favored engine of economic growth. Domestic companies, established mainly by those close to the military, and foreign investors had long wanted to take control of natural resources and cheap labor, but faced at least two institutional and political obstacles: the absence of enabling laws, and the violent conflict with ethnic armed groups in whose territories most of the natural resources are located. Thus, two key reforms were pursued. The first was to reach effective ceasefire agreements with ethnic armed groups. While there are multiple and diverse reasons and imperatives for ceasefire, depending on the key actors involved, one agenda that is favored largely though not solely by the government was the anticipation that such might facilitate investors’ entry into previously inaccessible territories and access to their natural resources (Woods, 2011); the second was to pass new laws related to investments, mining and agricultural land that could allow, legalize or legitimize reallocation of resource access and use (TNI, 2015a, 2015b). The 2012 Farmland Law aspires to register or formalize land claims through private property titles. The 2012 Vacant, Fallow, Virgin and Land Management (VFV Law) aims to

minimize the inefficient use of scarce land resources by offering these types of lands to enterprising individuals and corporate investors. Since 2012, the VFV law is widely perceived to have facilitated land dispossession among villagers, and has been popularly referred to by grassroots organizations as the 'land grabbing law' (LIOH, 2015). In 2018, the government introduced a revision of the law, declaring that villagers have to register their land claims by mid-March 2019; those who fail to do so, and continue to access lands, will be deemed illegal occupants and penalized. At the time of writing, a protest against the law has been launched by grassroots organizations led by the Land In Our Hands (LIOH) alliance.⁵ There are other laws that also helped shape land politics in the post-2010 period, including the Special Economic Zones (SEZ) law and the long-standing opium crop substitution program (Kramer & Woods, 2012) that proved easy to manipulate in order to legitimize land grabs. Ceasefire agreements with several ethnic armed groups provided the lubricant needed to facilitate the entry of investors into previously impenetrable territories (Woods, 2011). By 2015, up to 3 million acres of farmland had been allocated to agribusiness concessions alone, excluding the widespread land transactions carried out in stealth (as will be shown later in this paper), large-scale conservation projects and mining operations (LIOH, 2015).

The Myanmar government also started to engage with international climate change politics. The government committed itself to international agreements regarding forest conservation and renewable energy, both of which directly implicate natural resources (forest, land, water, seas) (Prescott et al., 2017). This is demonstrated in official documents on the Intended Nationally Determined Contributions (INDC) during the build-up to COP21 (Paris) in 2015 (Republic of the Union of Myanmar, 2015), and validated and elaborated in the government's Myanmar Climate Change Strategy and Action Plan (MCCSAP) 2016–2030 (MoNREC, 2017). The Myanmar government is a signatory to the Paris Agreement on climate change of April 2016. The government pledge embodied in MCCSAP can be summarized as follows:

[T]he [agriculture and forestry sector] also presents huge potential to sequester carbon through forest enhancement, conservation and sustainable management. There is an urgent need to invest in such programmes as unplanned development will jeopardise Myanmar's current net GHG sink status. Reforesting and restoring 50 per cent of Myanmar's degraded forests using REDD+ could sequester about 1,910 million tonnes CO₂. (MoNREC, 2017, p. 20)

The policy document continues, "the country is developing a REDD+ strategy ... and a Climate Smart Agriculture Strategy (CSAS). The preparations for new Environmental Policy, Climate Change Policy, Green Growth Strategy and National Adaptation Plan (NAP) are underway" (ibid., p. 38). Concretely, the new "policy aims for 30 per cent of the total land area to be reserved forest; and 5 per cent to be protected area systems" (ibid., p. 22). All this policy reframing and commitment has unfolded, and will continue to unfold, unevenly across geographic and institutional spaces within the country.⁶

Our study focuses on Northern Shan State (NSS) that borders with China and Thailand, with significant Shan, Kachin and Kokang ethnic populations. The rural areas of the NSS are witnessing a radical socio-economic, political and ecological transformation that is unprecedented in its history. At the core of this social change is the convergence of climate change politics and land rush in ways similar to those we have witnessed in other parts of the world. This

transformation is largely premised on the global mainstream assumption described above that some agrarian production systems, such as shifting agriculture found in upland NSS, are *economically inefficient and ecologically destructive*. The logic of the VFV law is founded on the former, while the long-standing campaign by the Myanmar government against shifting agriculture is premised on or justified by the latter.⁷ The commodification of land, water, forests and labor is at the heart of this transformation in NSS. Privatization of village commons through formalization of land access and/or individual private land titling is central to commodification. Meanwhile, the campaign against shifting agriculture, purportedly on ecological grounds, overlaps with the narrative on efficiency. In our interviews, villagers voiced the suspicion that one way of declaring their farmlands to be 'vacant' is by disqualifying their land claims on the basis that the villagers engage in the unlawful act of forest burning; some villagers are simply scared to claim their 'slash-and-burn' fields. The long-standing tension between the villagers and the central state on this question has been reignited in the era of climate change politics, when the state seems to have been emboldened to renew its campaign against shifting cultivation.

Global campaigns for economic efficiency and ecological sustainability that underpin mainstream agricultural development discourse today (Deininger & Byerlee, 2011; FAO, 2013; World Bank, 2007, 2016) represent something of a textbook modernization paradigm: sedentary farming engaged in modern (i.e. chemical-based) agriculture and using commercial seeds to produce commodities for trade. Ground rent, interest from credit, profit and wages are thus introduced into agrarian communities where they were previously less known. Food security is redefined away from the long-standing practice based on a moral economy in which self-provisioning or the right to subsistence is a key pillar (Scott, 1976), to a phenomenon that is monetized and commoditized: it is all about the purchasing power of rural households to buy food in the commercial market. This transformation is a classic story of tension and contradiction among and between the central state and social class forces, between town and country, in defining the future of the rural areas and in determining how that future can be constructed. It is an emblematic case demonstrating the power of commodification of everyday life in transforming social relations around production and social reproduction. This textbook picture of what a modern rural areas should look like is coming alive today in NSS where many of the previously biodiverse, upland, shifting-agriculture communities are being rapidly transformed into sedentary, commercial monoculture crop-producing villages, and large-scale development projects, such as hydropower, are being introduced. We will discuss below two specific cases that demonstrate key features of this transformation.

3.2. The hydropower project on the Salween River

The Salween River runs near the border with China and Thailand, and stretches all the way to southern Myanmar. Since 2008, the government of Myanmar has been planning to build seven hydropower projects on this river alone, and three of these are in NSS (one of which is the subject of our research).⁸ A company from China (Asia World) is to build the dams, and the electricity generated would mainly be exported to China and Thailand. It is a straightforward mega development project for cheaper electricity for industrial-commercial interests in China and Thailand. In the period 2013–2016, there was a surge of activities towards actually building the dams, provoking protests from the local communities and

⁵ Discussion with Khu Khu Ju of LIOH, November 2018, Yangon. See also: <https://lioh.org/?p=346>, viewed 3 March 2019.

⁶ See Prescott et al. (2017) for a broad canvas of possible issues implicated in such policy reframing.

⁷ In all our FGDs and key informant interviews, ordinary villagers told us that government officials do not give 'Form 7' (the formal registration of land claims) to those who are suspected of engaging in shifting agriculture.

⁸ See also Lamb and Dao (2017) for a relevant analysis of regional trend.

nationally, forcing the government to suspend the project. However, everything about the project has been shrouded in secrecy and villagers are not really sure whether the dams will be built or not. Government efforts in 2015–2016 to carry out a census of the affected communities and their possible relocation reinforced the villagers' suspicions and fears that the project will push through.

More recently, the justification for the hydropower project may have started to include framing in terms of climate change mitigation and protecting the environment. This is seen partly in the changing narrative used by government officials in justifying the dams' construction. One of the villagers we interviewed explained:

An official from Nay Pyi Taw came one day and we were called to a village meeting. The official mentioned that the dam is important because of climate change. We were told to stop cutting trees for firewood. He said that with the dam everyone would get cheap electricity. With cheap electricity, we will stop using charcoal for cooking. This will result in the stopping of charcoal production and in the destruction of the forest. Therefore, we must support the dam because it is for our good and for the environment.⁹

Villagers say that such a framing by government officials have become more common than years ago when they first started to talk about dam building. Such scattered talks by government officials along the lines of climate change mitigation fit neatly with the prominent appearance of hydropower projects as key renewable energy source in the official government documents related to its commitment to international measures like the Paris Agreement (MoNREC, 2017).

So what is the story about this hydropower project? The Kun Long area which will be affected by the hydropower project hosts mainly Kachin and Kokang ethnic groups. One of the villages in this general area is an old village. It also became home to some families from China fleeing the victorious Red Army of Mao Zedong. Villagers in Kun Long have relied on the Salween River for their water needs, including drinking water. Close to the river, many households who have Form 7 land registration¹⁰ are engaged in rubber cultivation. Plots in the upland were refused issuance of Form 7, with villagers believing that this was because they are engaged in shifting cultivation.¹¹ There are also some lands in the upland that are suitable for shifting cultivation but have been left fallow by the families that own them. Village families in this area have relatively small plots, perhaps averaging 5 acres per household. In the same area, a local official who lives in another village has set up a rubber plantation. It is "quite a lot", according to villagers; they estimate the plantation to be about 1000 acres. According to the villagers we interviewed, this was mainly taken from the villagers' plots. The local area used to be a poppy cultivating community, but this was stopped in 2002. New crops were introduced, mainly corn, sugarcane and rubber. These new commercial crops also brought the military into the community. According to the villagers we interviewed, in 1998 the military came and forcibly took 239 acres from their village land. Other entrepreneurs also came and took lands from the villagers in a variety of ways in which villagers feel are not always fair. Overall, the village lost more than 300 acres of land. The land taken

by the military was dedicated to corn, and villagers were coerced to 'voluntarily' cultivate this land for the army. For reasons that the villagers we interviewed could not explain, the military stopped cultivating corn in 2004 and left the land fallow. A few years later, the rubber boom reached the village, and the military auctioned off the land in lots to private companies and entrepreneurs, who later got official Form 7 land registration. In 2013, the same private buyers tried to apply for Form 7 for an additional 10 acres of village-owned land; the land registry office told them that the land is within the dam construction area, and so the application was denied. The villagers have heard rumors about a possible dam project since 2008.

Despite all the land losses, at the time of our research, the village still had about 1000 acres of community forestland some 3 miles from the village, that they have been trying to set aside as a forest reserve. They also have another 40 acres of village forestland near the village center. They could rely on this for bamboo and softwood materials, but not for their hardwood needs. In the past they used to get a lot of non-timber forest products including wild meat in their village forest. The shift to monoculture rubber has had a profound impact on the livelihood complex of households. Where previously livelihoods comprised the planting of corn, rubber and kitchen garden vegetables, mixed with casual wage work and some migration to China to work, now—partly due to rubber cultivation—household kitchen gardens and small-scale horticulture have shrunk, as have household livestock activities like the traditional way of raising pigs. As a result of past and continuing land deals and everyday forms of land accumulation by wealthy individual land brokers, including that linked to the dam project, and the continued refusal of the land registry office to give Form 7 registration to shifting cultivation farmers, landlessness is increasing. According to the villagers we interviewed, there used to be no households without land in the village, but now there are many who are landless.

The dam project was officially announced to the villagers in January 2015. A village meeting was organized with various government representatives, including from the land registry office and electricity commission, and representatives from the Chinese company (Asia World). They told the villagers that the dam would be built, that a base was needed for the workers, and that the villagers would have to move. Compensation was promised at a level that they said would make the villagers better off. No clear timeframe was given to the villagers. At the same time, officials went around the village and began to do some mapping: family plots were measured, houses were photographed with families in the picture, and had each sign and attest: "this is my land and this is what I own". Some did not want to sign, but were forced to. The villagers did not want to move out, and were scared. As villagers told us, "this is our land and we do not want to abandon it because it is where we have our whole lives";¹² and, "We do not want the dam. If the dam collapses we'll lose everything—life, land, possessions. We don't want this dam".¹³ They also became aware that their village is not the only one affected: most villages along the Salween River will be impacted. After the meeting, the land registry officials came back, and spent another two days mapping the village proper (house lots and yards only).

Government officials hinted that dam construction would start in early 2015, but a resurgence of fighting between the military and armed ethnic groups meant that this was not feasible. In addition, a number of organizations, including NGOs and local churches, have launched a campaign against the hydropower project along the Salween River, while, throughout Myanmar, there has been widespread protest from affected villagers and civil

⁹ A village leader, interviewed in 2016 in Kun Long area. This has been confirmed by other villagers in multiple interviews and FGDs carried out by the research team members.

¹⁰ Individual claims for farmland rights are processed through formal registration. The document issued to successful claimants is called 'Form 7'. Also see note 5 above.

¹¹ Officially, the government of Myanmar does not call for the outright banning of shifting cultivation. Yet, informally and in reality, shifting cultivation is shunned. While this can be seen in a variety of ways, denying issuance of Form 7 is perhaps the most direct and powerful coercion exercised by the state to force villagers to abandon shifting cultivation. Information based on FGDs and key informant interviews during the entire research process for this paper, 2015–2018.

¹² Interview with a villager in Kun Long, 2016. These sentiments were confirmed by separate FGDs carried out in a couple more villages in the dam building affected area.

¹³ Interview with a villager in Kun Long, 2016.

society organizations against more than 20 hydropower projects that are being planned. Due to the convergence of all these factors, the national parliament that took office in 2016 then temporarily suspended the construction of the dam. In 2017, as noted above, the government released its Myanmar Climate Change Strategy and Action Plan 2016–2030, wherein renewable energy (mainly in the form of hydropower megaprojects) and forest conservation form two of its principal commitments to international climate change agreements (MoNREC, 2017). In late 2018, talks about the resumption of dam projects across the country started to circulate among the affected local communities.

3.3. Corn production

The stories of two case study villages—one near Kutkai, the other near Lashio (NSS's capital city)—are intertwined with the corn boom. The village near Kutkai is an iconic case of a village that has been in the middle of the land rush. The recent government policy allowing virgin and fallow land to be allocated for concession through the VFV law was used to justify reallocation of 1000 acres of village land, which was then allocated to a company that cultivated corn. In addition, the military confiscated 150 acres from the village. Moreover, the school principal in the village said he would use some of the village land to raise funds for the school by growing corn, but he put 30 acres of land in his own name, subdivided and sold it off. Some 7 miles from the village is an area of irrigated paddy fields, adjacent to the village's water source. Years ago, a local gold mining company operated close to this area, and the mine tailings polluted and destroyed all 500 acres of prime irrigated paddy fields. The villagers were scared to protest because the military was behind the gold mining company. On the remaining lands that could be cultivated, most villagers stopped their practices of shifting cultivation and took up sedentary, chemical-based (fertilizer, pesticides) corn cultivation, amid a corn boom.

In the other village, near Lashio, there is one stream running alongside the village but outside its boundaries; it is the only water source but provides enough for household and agricultural use. During monsoon, fields get submerged, making the community forest quite biodiverse. Fishing, by hand and basket, and hunting (only on Saturdays) were part of the long-standing livelihood tradition in this village. Some years ago, the villagers were enticed to give up shifting cultivation in favor of corn monoculture. Much of the community forest became depleted, giving way to more corn monoculture. After years of cultivating corn, villagers noticed that the water source was drying up, and the stream flow was getting weak. The traditional method of fishing could no longer provide sufficient catch. They were forced to use dynamite and shocking methods that they had seen being practiced elsewhere and now started doing themselves. The flow of water became irregular, with floods during the monsoon getting bigger and more frequent. Villagers effectively lose paddy fields during the monsoon.

Villagers believe that the immediate cause of all these troubles is their shift to large-scale corn monoculture. Shan people from nearby villages had started to cultivate corn in 2003. The Kachin communities saw that these villagers were getting good yields and profits, and so some of them started to experiment too. By 2011, the shift of corn production from inside China to the cheaper production in Myanmar started to gain momentum, coinciding with the convergence with a range of actors inside Myanmar keen on seizing opportunities opened up with increasing liberalization of land access (Woods, 2015). Rapid and widespread expansion of corn production replaced much of the shifting cultivation in this village. But the villagers soon discovered that external inputs—seeds, credit, pesticides and fertilizer—are expensive. They have to get their inputs from the merchants buying the corn: if they borrow 100,000 Kyats, they have to pay it back 150,000 Kyats after

harvest. Productivity per acre has been decreasing and their net income has been going down. In the next village, they saw that some lands were completely destroyed after more than 10 years of monoculture and use of synthetic fertilizers and chemicals. There is not much reported forcible land grabbing in this village, but the village lands and villagers' plots are not registered (the government refused to issue them with Form 7). With the rise of corn monoculture (Woods, 2015) and the partial demise of biodiverse shifting cultivation, villagers are becoming more and more indebted, and consequently, many are losing their lands.

4. The changing political axes of conflict

Prior to the era of climate change politics and the current global land rush, there were three dominant political axes of conflict in agrarian societies: working people versus the state, working people versus companies, and working people versus working people. These conflicts and the attempts at resolving them are in turn embedded in broader social relations: individuals involved in conflict do not enter conflict resolution mechanisms and processes as random individuals detached from their socio-economic and political social class relations (Borrás & Franco, 2013). For example, an individual landlord enters such a space in a different way and with different power than an individual landless tenant. Social class and other identity politics (e.g. gender, ethnicity) play a critical role in shaping conflicts, how these conflicts are resolved, who wins and who loses (Franco, 2008).

This fundamental political configuration remains intact, but has been altered in the contemporary era. Today, as demonstrated by the case studies from NSS discussed above, the interconnections between climate change politics and the land rush partly result in old and new forms of conflict, along five broad axes, namely: (i) working people versus the state; (ii) working people versus companies; (iii) working people versus land rush entrepreneurs – land buyers, land brokers, land scammers, militia; (iv) working people versus climate change mitigation and adaptation entrepreneurs; and (v) working people versus working people.¹⁴ In using the term 'working people' here we are aware of the problems that such a term brings. Following Issa Shivji's definition and argument (Shivji, 2017), by 'working people' we mean, loosely, poor and middle peasants, landless laborers, and other semi-proletariat in the rural areas (that is, agricultural villages as well as small and medium size towns).

It is not that these newer axes were not there before. They were. But the extent and intensity to which they have become activated may have increased. This has profoundly reconfigured land politics in NSS in terms of who gets what land, how, how much, why, for what purposes, and with what socio-economic and political implications. Land politics has shaped and been shaped by climate change politics: who gets to define what are legitimate mitigation and adaptation measures, involving which and whose natural resources, how, why and with what socio-economic and political implications? We now turn to a brief discussion of axes of conflict based on the empirical cases presented above, focusing only on the last three axes, which tend to be under-explored in the literature.

Working people versus land rush entrepreneurs. The proliferation of land grabbing entrepreneurs has been clearly observable in recent years, in their various guises: land broker, land speculator, entrepreneur, scammer, swindler, or thief—'the men in the middle', to use Sud's term (Sud, 2014). These are individuals who usually do not own companies to speak of, but go around the village with the

¹⁴ These political axes of conflict can be multiplied when we consider social class and other identities as fault-lines. For example, gender can be another important axis (see Faxon, 2017).

aim of buying or leasing lands, or forcibly and violently grabbing lands from the villagers, or enticing or coercing villagers to go into contract cultivation usually for corn, sugarcane or banana. In one village around Kun Long district, an entrepreneur started leasing or buying up lands from villagers through the provisions of the VFV law. He offered relatively high prices for the land. Some villagers who were financially hard up sold their land. Once the buyer had a significant quantity of contiguous land, he started planting rubber. He then went to the local government and the police to make the request that villagers be prohibited from burning their fields and from letting their animals loose near to the newly planted rubber plantation. This meant that the villagers were effectively denied their livelihoods because shifting agriculture is fundamentally dependent on periodically burning fields and letting animals roam freely. The villagers were later forced to give up their land in favor of the same land entrepreneur. But this time, the latter wanted to pay only a fraction of what used to be the acquisition price. Having lost their autonomy and ability to maintain their livelihood under the new restrictions, the villagers had no choice but to give in. Through this scheme, the individual entrepreneur was able to amass vast tracts of land: according to the villagers we interviewed, this entrepreneur owned several thousand acres in one micro region we visited near Kun Long. Local villagers and grassroots activists working in NSS said that these 'everyday forms of land accumulation' – in the context of a land rush (recall our earlier discussion about the concept of 'land control grabbing') – are widespread across NSS.¹⁵

In a village north of Kutkai, meanwhile, a militia group seized the villagers' land insinuating that villagers were engaged in poppy cultivation, an accusation denied by the villagers. The militia then opened a sugarcane plantation, where the villagers who had lost lands were recruited to become seasonal cane cutters. The harvested cane was then sold to a company from China, who loaded up trucks and hauled the cut canes to the nearby sugar mill inside China. There are many variations of these schemes across NSS that do not involve formal companies, but rather layers of land rush entrepreneurs. It would not be surprising to find that the extent of villagers losing lands and/or autonomy to pursue their livelihoods to such entrepreneurs is far greater than the losses caused by high profile companies and mega development projects. This is a matter that requires extensive and careful empirical research.¹⁶ This form of land accumulation by stealth involving layers of land brokers may well constitute the death of agrarian villages by a thousand pinpricks, so to speak.

Working people versus climate change entrepreneurs. Climate change politics as defined here has brought with it its own entrepreneurs: individuals and groups that engage in profit-making activities in the name of climate change (recall our expanded discussion in Section 1 on the broader definition of climate change politics). That conservation groups expel people from forests had been well documented. This arises from a problematic assumption that ordinary villagers destroy forests. While science has advanced to show that the reality is not as black and white as conservation organizations might claim, nevertheless, in recent years big conservation groups have increased in strength, partly because they have been empowered in multiple ways by climate change politics (Arsel & Büscher, 2012; Brockington & Duffly, 2010).

In Myanmar, the fact that the government's main commitment to intergovernmental climate change mitigation and adaptation agreements is the expansion of its permanent forest cover to 40% of its land area (MoNREC, 2017) means that forest politics have

been put front and center of broad public policy debates, where big conservation groups play a politically powerful role. This leads to various forms of conflict with poor villagers, including the most common practice of conservationists partially or fully prohibiting access to the forest by villagers, adversely affecting the latter's autonomy and capacity to construct and maintain a livelihood. In addition, there are increasing instances of big conservation groups forging alliances with large-scale agribusiness investors in terms of demarcating lands for conservation and agribusiness investments where both get their coveted land, while villagers lose access. In a village north of Kutkai, the Ministry of the Environment seized a community forest from the villagers, and replanted it with pine trees, arguing that it would become a conservation area, which villagers are prohibited from entering. The earlier discussion about land brokers and speculators benefiting from rumors about a bio-fuel project is also relevant here. Overall, climate change politics has led to the emergence of an array of entrepreneurs inside and outside the state operating at local, national and international levels. They make profit in various ways by invoking climate change mitigation and adaptation, whether this is linked to bio-fuels or hydropower dam construction, carbon sequestration or reduced emissions. And this almost always happens at the expense of the villagers whose autonomy and capacity to maintain or protect resource access and control have been progressively eroded.

Working people versus working people. Of all resource conflict types brought about by the convergence of climate change politics and the global land rush, perhaps the most widespread and pervasive is the 'working people versus working people' axis. This is often based on social class, ethnicity, gender and generation—factors that are played out in socially differentiated communities. When land grabbing or climate change entrepreneurs come into the village and recast resource politics, their actions affect different social groups differently. There are tensions and synergies among the affected villagers, as there are issues that unite and issues that divide these communities. This is also the most difficult type of conflict to settle, and the type that many researchers overlook, deliberately or otherwise because it is often too complicated and awkward to address. In NSS, one of the fault-lines is ethnicity. In one village west of Kutkai, the predominantly Kachin population fled fighting between ethnic armed groups and ended up in an Internally Displaced Peoples (IDP) camp in Kutkai. Once they abandoned their village, Shan people from nearby villages took over their land and farms, while some wealthy individuals of Chinese ethnicity engaged in small-scale logging also moved in. Now that there are talks about IDPs' 'right to land' and going back 'home', the complex social tensions become even more palpable.

5. Concluding discussion

At a superficial glance, climate change politics should have little impact in Northern Shan State because there are no major official climate change policies, programs, projects or initiatives, at least not yet as of the first half of 2019 (the central government eyes NSS as a key area for a possible REDD+ project). Thus, NSS—and indeed Myanmar in general—can easily be ignored when considering how climate change politics affects, or could affect, ordinary villagers. But as we have shown, the profound transformation of the NSS rural areas during the past decade, where many villagers have lost their autonomy and their capacity to access natural resources, is in fact linked to or entangled with—albeit by stealth or in quite subtle and indirect ways—climate change politics. The latter is in turn intertwined with the land rush: they shape and enable one another. One way to see this subtle interconnection is to understand climate change politics and the land rush as book-ends, and the points of intersection between them and the social

¹⁵ This is confirmed by many villagers and local NGO workers with whom we have spoken on various occasions during 2014–2018.

¹⁶ Xu's study of land deals in southern China demonstrates the dominance of this kind of land transactions in that part of the world (Xu, 2018).

change they cause, as a dynamic continuum between these two ends. This will give us a better appreciation of other theoretical and methodological propositions responding to similar empirical complexities, such as Baird and Barney's appeal for cross-sectoral analysis, e.g. land and water politics (Baird & Barney, 2017), a 'telecoupling approach' (Baird & Fox, 2015), or a 'landscape approach' (Barbesgaard, 2019; Hunsberger et al., 2017). Our analysis in this paper partly identifies with such broad approaches that plea for cross-sectoral perspectives. Looking back at the discussion in Sections 1 and 2, it is clear that the situation we have examined in this paper is not unique to NSS or to Myanmar. It might in fact be more common in many parts of the world than previously assumed.

In NSS in particular and Myanmar more generally, how to govern such a situation in the context of advocating for 'climate justice'—that is, taking climate change seriously while advancing a sense of fairness for the exploited and marginalized social classes and groups in society (Harris, 2009)—becomes a difficult challenge precisely because situations such as the dispossession of villagers are not immediately seen as being linked to climate change politics (or because land deals do not involve big, recognizable, foreign companies and so are not considered to be 'land grabs'). Observers, researchers and practitioners can become obsessed with what is officially labeled as mitigation and adaptation, for example, REDD+, local and specific biofuels projects, or certified Climate Smart Agriculture initiatives. These are concrete projects that are officially funded and have entered into official agendas. It is definitely important to look into these processes and how they directly impact agrarian villages. However, if we view climate change mitigation and adaptation from a broader perspective, i.e. system-wise and society-wide, then such projects, while laudable and useful as practical policy initiatives and objects of research, shrink in significance relative to the broader notion of 'climate change politics'. In this context, we can start to see connections between geographies and institutions of conservation and destruction: REDD+ here, forest clearing for monoculture plantation there. *Preserve and conserve here, destroy and plunder over there.*

For us, the first step towards addressing the challenges of climate justice and agrarian justice is therefore to acknowledge the connection between climate change and land. This is why the IPCC 2019 report on this theme is strategically important albeit it has fundamental flaws and important shortcomings. The space given to land politics in the massive report is too tiny for the enormity of the issue and in the context of a huge report, and too narrow for a vast and complex issue; it completely ignores the critical link between climate change and land, namely, 'green grabbing' as articulated by Fairhead, Leach and Scoones (2012). A productive next step is to acknowledge the subtle interconnections between the climate change politics and the global land rush, many of which are indirect or occur by stealth. The latter does not make such interconnections less important; it only makes the task of democratic governance even more challenging (Franco, Park, & Herre, 2017), requiring multi-level cross-class and cross-sectoral alliances. Recognizing such subtle and indirect interconnections is a promising step towards forging concrete links between climate justice and agrarian justice, or what Borrás and Franco (2018) call "agrarian climate justice"—that is, what social justice might mean in rural communities in the era of climate change politics and the global land rush.¹⁷

¹⁷ Borrás and Franco (2018) outlined how such an idea of agrarian climate justice could be constructed around the principles of 5Rs: redistribution, recognition, restitution, regeneration, and representation. A relatively expanded version of this, and articulated in the context of the rise of regressive populism worldwide, is found in Borrás (2020).

Conflict of interest

We have no conflict of interest whatsoever.

Acknowledgements

The research for this paper benefited from the support of the research project "Mosaic: Climate change mitigation policies, land grabbing and conflict in Cambodia and Myanmar" (2014–2018) funded by the Dutch NWO and the UK DFID (Project Grant no. W07.68.416), especially during the fieldwork and early writing phase. During the final revisions of the manuscript, this paper has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No. [834006]), under the ERC Advanced Grant project RRUSHES-5, 2019–2024. From 2014 to 2019, our work for this paper also benefitted from the support of the Myanmar Programme of the Transnational Institute (TNI), and the BRICS Initiatives for Critical Agrarian Studies (BICAS) with funds from the Ford Foundation Beijing Office. It has benefited from interactions and discussions during the period 2011–2019 with grassroots activists in Myanmar too numerous to name and thank here. For the productive discussions on issues directly related to this paper, we thank Gum Sha Aung, Khu Khu Ju, Sai Sam Kham, Tom Kramer, Ja La, Kyaw Thu, and Pietje Vervest, and the team members of the Mosaic project. We thank the Northern Shan State Program staff of the Metta Development Foundation for facilitating the research process from 2014 to 2018. We thank three anonymous reviewers for this journal for their critical but very constructive and helpful comments, as well as the encouragement and guidance from the journal editors, that helped in tremendously improving the quality of our paper. Finally, we thank Paula Bownas for the excellent copyediting assistance. Any remaining errors are ours alone.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.worlddev.2019.104864>.

References

- Arsel, M., & Büscher, B. (2012). Nature™ Inc.: Changes and continuities in neoliberal conservation and market-based environmental policy. *Development and Change*, 43(1), 53–78.
- Baird, I., & Barney, K. (2017). The political ecology of cross-sectoral cumulative impacts: Modern landscapes, large hydropower dams and industrial tree plantations in Laos and Cambodia. *Journal of Peasant Studies*, 44(4), 769–795.
- Baird, I., & Fox, J. (2015). How land concessions affect places elsewhere: Telecoupling, political ecology, and large-scale plantations in southern Laos and northeastern Cambodia. *Land*, 4(2), 436–453.
- Barbesgaard, M. (2019). Ocean and land control-grabbing: The political economy of landscape transformation in Northern Tanintharyi, Myanmar. *Journal of Rural Studies*. <https://doi.org/10.1016/j.jrurstud.2019.01.014>.
- Borrás, S. M. Jr. (2020). Agrarian social movements: The absurdly difficult but not impossible agenda of defeating right-wing populism and exploring a socialist future. *Journal of Agrarian Change*, 20(1), 3–36.
- Borrás, S. M., & Franco, J. C. (2018). The challenge of locating land-based climate change mitigation and adaptation politics within a social justice perspective: Towards an idea of agrarian climate justice. *Third World Quarterly*, 39(7), 1308–1325.
- Borrás, S. M., Jr. & Franco, J. C. (2013). Global land grabbing and political reactions 'from below'. *Third World Quarterly*, 34(9), 1723–1747.
- Borrás, S. M., Jr, Kay, C., Gómez, S., & Wilkinson, J. (2012). Land grabbing and global capitalist accumulation: Key features in Latin America. *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, 33(4), 402–416.
- Borrás, S. M., Franco, J. C., Isakson, S. R., Levidow, L., & Vervest, P. (2016). The rise of flex crops and commodities: Implications for research. *Journal of Peasant Studies*, 43(1), 93–115.
- BP (2018). Statistical Review of World Energy 2018. <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy->

- economics/statistical-review/bp-stats-review-2018-full-report.pdf. Viewed 1 March 2019.
- Brockington, D., & Duffy, R. (2010). Capitalism and conservation: The production and reproduction of biodiversity conservation. *Antipode*, 42(3), 469–484.
- Carter, S., Manceur, A., Seppelt, R., Hermans-Neumann, K., Herold, M., & Verchot, L. (2017). Large scale land acquisitions and REDD+: A synthesis of conflicts and opportunities. *Environmental Research Letters*, 12(3) 035010.
- Cramer, C., & Richards, P. (2011). Violence and war in agrarian perspective. *Journal of Agrarian Change*, 11(3), 277–297.
- Deininger, K., & Byerlee, D. (2011). *Rising global interest in farmland: Can it yield sustainable and equitable benefits?*. Washington DC: World Bank Publications.
- Dressler, W. H., Wilson, D., Clendenning, J., Cramb, R., Keenan, R., Mahanty, S., ... Lasco, R. D. (2017). The impact of swidden decline on livelihoods and ecosystem services in Southeast Asia: A review of the evidence from 1990 to 2015. *Ambio*, 46(3), 291–310.
- Edelman, M., Oya, C., & Borrás, S. M. Jr. (2013). Global Land Grabs: Historical processes, theoretical and methodological implications and current trajectories. *Third World Quarterly*, 4(9), 1517–1531.
- Fairhead, J., Leach, M., & Scoones, I. (2012). Green Grabbing: A new appropriation of nature? *Journal of Peasant Studies*, 39(2), 237–261.
- FAO (2013). *Climate-smart agriculture sourcebook*. Rome: FAO.
- FAO (2015). *FRA 2015: Forest resources assessment working paper 180*. Rome: FAO.
- Faxon, H. (2017). In the law & on the land: Finding the female farmer in Myanmar's National Land Use Policy. *Journal of Peasant Studies*, 44(6), 1197–1214.
- Franco, J. C. (2008). Peripheral justice? Rethinking justice sector reform in the Philippines. *World Development*, 36(10), 1858–1873.
- Franco, J. C., & Borrás, S. M. (2019). Grey areas in green grabbing: Subtle and indirect interconnections between climate change politics and land grabs and their implications for research. *Land Use Policy*, 84, 192–199.
- Franco, J., Park, C. M. Y., & Herre, R. (2017). Just standards: International regulatory instruments and social justice in complex resource conflicts. *Canadian Journal of Development Studies*, 38(3), 341–351.
- Gillon, S. (2016). Flexible for whom? Flex crops, crises, fixes and the politics of exchanging use values in US corn production. *Journal of Peasant Studies*, 43(1), 117–139.
- Goodman, D., Sorj, B., & Wilkinson, J. (1987). *From farming to biotechnology: A theory of agro-industrial development*. London: Basil Blackwell.
- Harris, P. G. (2009). *World ethics and climate change: From international to global justice*. Edinburgh: Edinburgh University Press.
- Harvey, D. (2003). *The new imperialism*. Oxford: Oxford University Press.
- Hunsberger, C., Work, C., & Herre, R. (2018). Linking climate change strategies and land conflicts in Cambodia: Evidence from the Greater Aural region. *World Development*, 108, 309–320.
- Hunsberger, C., Corbera, E., Borrás, S. M., Franco, J. C., Woods, K., Work, C., ... Vaddhanaputhi, C. (2017). Climate change mitigation, land grabbing and conflict: Towards a landscape-based and collaborative action research agenda. *Canadian Journal of Development Studies*, 38(3), 305–324.
- IPCC (2019). *IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse gas fluxes in Terrestrial Ecosystems*. Approved Draft. 07 August 2019.
- Kaag, M., & Zoomers, A. (2014). *The global land grab: Beyond the hype*. London: Zed Books.
- Kramer, T., & Woods, K. (2012). *Financing dispossession: China's opium substitution programme in northern Burma*. Amsterdam: Transnational Institute.
- Lamb, V., & Dao, N. (2017). Perceptions and practices of investment: China's hydropower investments in Vietnam and Myanmar. *Canadian Journal of Development Studies*, 38(3), 395–413.
- Larson, A. M., Brockhaus, M., Sunderlin, W. D., Duchelle, A., Babon, A., Dokon, T., ... Huynh, T.-B. (2013). Land tenure and REDD+: The good, the bad and the ugly. *Global Environmental Change*, 23(3), 678–689.
- Levien, M. (2013). Regimes of dispossession: From steel towns to special economic zones. *Development and Change*, 44(2), 381–407.
- LIOH (2015). *Destroying people's lives: The impact of land grabbing on communities in Myanmar*. Yangon: Land In Our Hands (LIOH) Network.
- Malm, A. (2016). *Fossil capital: The rise of steam power and the roots of global warming*. New York: Verso.
- Martinez-Alier, J., Temper, L., Del Bene, D., & Scheidel, A. (2016). Is there a global environmental justice movement? *Journal of Peasant Studies*, 43(3), 731–755.
- McKay, B., Sauer, S., Richardson, B., & Herre, R. (2016). The political economy of sugarcane flexing: Initial insights from Brazil, Southern Africa and Cambodia. *Journal of Peasant Studies*, 43(1), 195–223.
- Mehta, L., Veldwisch, G. J., & Franco, J. C. (2012). Introduction to the Special Issue: Water grabbing? Focus on the (re) appropriation of finite water resources. *Water Alternatives*, 5(2), 193–207.
- MONREC (2017). *Myanmar climate change strategy and action plan*. Nay Pyi Taw: The Republic of the Union of Myanmar. Version 19 January 2017.
- Moore, J. W. (2017). The Capitalocene, Part I: On the nature and origins of our ecological crisis. *Journal of Peasant Studies*, 44(3), 594–630.
- Moreda, T. (2017). Large-scale land acquisitions, state authority and indigenous local communities: Insights from Ethiopia. *Third World Quarterly*, 38(3), 698–716.
- Newell, P., & Taylor, O. (2018). Contested landscapes: The global political economy of climate-smart agriculture. *Journal of Peasant Studies*, 45(1), 108–129.
- O'Connor, J. (1998). *Natural causes: Essays in ecological Marxism*. New York: Guilford Press.
- Prescott, G. W., Sutherland, W. J., Aguirre, D., Baird, M., Bowman, V., Brunner, J., ... Webb, E. L. (2017). Political transition and emergent forest-conservation issues in Myanmar. *Conservation Biology*, 31(6), 1257–1270.
- Republic of the Union of Myanmar (2015). *Myanmar's intended nationally determined contribution – INDC*. Nay Pyi Taw: The Republic of the Union of Myanmar.
- Ribot, J. (2014). Cause and response: Vulnerability and climate in the Anthropocene. *Journal of Peasant Studies*, 41(5), 667–705.
- Scheidel, A., & Work, C. (2018). Forest plantations and climate change discourses: New powers of 'green' grabbing in Cambodia. *Land Use Policy*, 77, 9–18.
- Schoenberger, L., Hall, D., & Vandergeest, P. (2017). What happened when the land grab came to Southeast Asia? *Journal of Peasant Studies*, 44(4), 697–725.
- Scott, J. C. (1976). *The moral economy of the peasant*. New Haven, CT: Yale University Press.
- Shivji, I. (2017). The concept of 'working people'. *Agrarian South: Journal of Political Economy*, 6(1), 1–13.
- Sud, N. (2014). The men in the middle: A missing dimension in global land deals. *Journal of Peasant Studies*, 41(4), 593–612.
- Taylor, M. (2018). Climate-smart agriculture: What is it good for?. *Journal of Peasant Studies*, 45(1), 89–107.
- TNI (2015a). *Assessment of 6th draft of the National Land Use Policy (NLUP)*. Amsterdam: Transnational Institute Myanmar Programme. June 2015.
- TNI (2015b). *Linking women and land in Myanmar: Recognising gender in the National Land Use Policy*. Amsterdam: Transnational Institute Myanmar Programme. June 2015.
- Verweijen, J., & Marijnen, E. (2018). The counterinsurgency/conservation nexus: Guerrilla livelihoods and the dynamics of conflict and violence in the Virunga National Park, Democratic Republic of the Congo. *Journal of Peasant Studies*, 45(2), 300–320.
- Virchow, D., Denich, M., Kuhn, A., & Beuchelt, T. (2014). The biomass-based value web as a novel perspective on the increasingly complex African agro-food sector. Paper presented at Tropentag, September 17–19, 2014, Prague, Czech Republic 'Bridging the gap between increasing knowledge and decreasing resources'. <http://www.tropentag.de/2014/abstract.php?code=Kb1yOJda> (viewed 28 September 2014).
- van Vliet, N., Mertz, O., Heinemann, A., Langanke, T., Pascual, U., Schmook, B., ... Zeigler, A. D. (2012). Trends, drivers and impacts of changes in swidden cultivation in tropical forest-agriculture frontiers: A global assessment. *Global Environmental Change*, 22(2), 418–429.
- Wolford, W., Borrás, S. M., Hall, R., Scoones, I., & White, B. (2013). Governing global land deals: The role of the state in the rush for land. *Development and Change*, 44(2), 189–210.
- Woods, K. (2011). Ceasefire capitalism: Military-private partnerships, resource concessions and military-state building in the Burma-China borderlands. *Journal of Peasant Studies*, 38(4), 747–770.
- Woods, K. (2015). *CP maize contract farming in Shan State, Myanmar: A regional case of a place-based corporate agro-feed system* BICAS Working Paper Series # 14. The Hague: International Institute of Social Studies (ISS).
- World Bank (2007). *World development report 2008: Agriculture for development*. Washington DC: World Bank.
- World Bank (2016). *World bank group climate change action plan*. Washington DC: World Bank. 7 April 2016.
- Xu, Y. (2018). Land grabbing by villagers? Insights from intimate land grabbing in the rise of industrial tree plantation sector in Guangxi, China. *Geoforum*, 96, 141–149.
- Zoomers, A., Gekker, A., & Schäfer, M. T. (2016). Between two hypes: Will 'big data' help unravel blind spots in understanding the 'global land rush?'. *Geoforum*, 69, 147–159.