



Making concessions pay? Historical vs. potential tax revenues from Laos's rubber sector

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ABSTRACT

Under-taxation has been a prominent feature of the global land rush, figuring centrally in early concerns that transnational land deals constitute a new round of land grabbing rather than a source of productive investment. In the years since, however, under-taxation has been widely ignored in subsequent literature on state land concessions in the agri-plantation sector across the global South. To address this gap, this paper draws on ongoing research in Laos, where improved concession inventory efforts have helped stimulate a wide-ranging debate (both in and out of government) about the country's still-opaque processes of concession taxation. We use the rubber sector to examine a pair of concession-taxation strategies that have been pursued to varying degrees both in Laos and more broadly: taxing *land* from the time it is alienated to a concessionaire (a land fee model), and taxing the *resource* itself – in this case rubber plantations – from the time they become productive (a royalty model). Using a quantitative-geographic approach enabled by Laos's recently updated land concession inventory, we estimate potential tax revenues from rubber plantations under four taxation regimes that were deployed in various parts of the country over the last decade and a half: two of each type, with each type including higher and lower per-unit variants. Our analysis of the space of potential taxation implies significant opportunity costs inherent in the status-quo approach to taxation, which we discuss via the example of unaddressed need for concession-related compensation. Especially at the higher-end range, where taxation potentials total in the tens of millions of dollars per year, we find that Laos's rubber-concession landscape has significant potential to help address this issue. To the degree that under-taxation is addressed in the future, however, new concession-tax revenues will increasingly be subject to spending demands from outside the rubber sector.

1. Introduction

"I'm confused." These words come from a staff-person at a district Agriculture and Forestry office in northern Laos. It is mid-2018.¹ We are back here after a few years' absence, discussing the plantations that supply a newly built, Chinese-owned rubber processing facility up the road. Our host, a district government staffer, just explained that the company sources its rubber from independent rubber producers in the area, as well as from two kinds of its own plantations: *samphan* – land concessions from the government that it fully controls – and *songseum*, a term that means "promotion" or "extension" but, in this context, refers to smallholder contract farming operations. This is where the confusion begins. Our host explains that the total area from these latter two

categories is 2,000 hectares (ha), but its concession is just a fraction of this – only 25 ha. But his description of where these 25 ha are located contradicts our prior research, so we ask about the part of the district where the company has a large, multi-hundred-hectare plantation. Three times during the ensuing conversation, our host phones a colleague who allegedly knows the situation better. This does not help. His colleague doesn't ultimately provide any additional information and our host finally tells us, exasperated – maybe at us, maybe at the rubber company (it is hard to tell) – that the company is reluctant to share details of its plantation area "because they don't want to pay tax."

Northern Laos exemplifies the numerous landscapes across the global South that, since the early 2000s, have been increasingly targeted by corporate plantation developers seeking to produce agro-industrial

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¹ This example comes from the first author's research, but the second author has had similar experiences. In order to preserve anonymity, names and locations have been omitted from this paragraph, and precise numbers have been altered.

commodities for export – a phenomenon often called the global land rush (Borras & Franco, 2012; Sassen, 2013; White et al., 2012; Liao et al., 2020). A national periphery within a country that combines low cadastral coverage with an expansive legal definition of state land, northern Laos's land rush began in the early-to-mid 2000s, its land deals focusing on rural upland areas where “informal” uses dominated, and which could thus be glossed as “state-owned” land (Dwyer, 2007; Shi, 2008; Schönweger et al., 2012; Dwyer, 2017; cf. Alden Wily, 2012; World Bank, 2010). The same occurred, with local variations, in many “land-rich” regions of the global south where smallholder farming remained largely illegible to the state, from southern Laos to Cambodia to Mozambique to Honduras and beyond (Borras et al., 2011; Danish Church Aid, 2011; Laungaramsri, 2012; Dwyer, 2015). Concession deals were supposed to bring development, infrastructure, jobs and sources of state revenue to rural peripheries, ushering these landscapes onto the cadastral map as part of a “last great enclosure” (Scott, 2009: 4) through which Southeast Asian states are increasingly making hinterland agriculture “modern,” “productive” and legible. Our informant's admission, however, pointed in the other direction: the new investors had remained almost as illegible as the shifting cultivators whose lands they had been given.

As researchers have increasingly demonstrated these land-deals' negative social and environmental impacts (e.g. Hufe & Heuermann, 2017; Li, 2018), the question of their economic impact on state taxation revenues remains relatively unexamined. Drawing on Laos's recent experience with concession inventorying, this paper examines the taxation of rubber plantations, using a key sector to investigate the mixture of regulatory and techno-politics that continues to perpetuate under-taxation despite recent advances in concession mapping. Under-taxation figured centrally in early debates about transnational land deals, but has been widely ignored in subsequent literature about both the land rush per se and, more broadly, by critical geographers of economic development. Drawing on both quantitative and qualitative evidence about concession taxation and land-taxation reforms more broadly, we examine a pair of strategies that have been pursued to varying degrees both in Laos and more broadly: taxing *land* from the time it is alienated to a concessionaire (a land fee model), and taxing the *resource* itself – in this case rubber plantations – from the time they become productive (a royalty model).² As elaborated below, we estimate potential tax revenues from Laos's current landscape of rubber plantations under four scenarios modeled on taxation regimes deployed in various parts of the country over the last decade and a half: two of

² Theoretically, governments can capitalize on land concessions through a variety of parallel taxation channels, including *concession fees* (or land fees), which are, in effect, proxies for land tax; *royalties*, or taxes levied on the commodities being produced; *export duties* or other VAT-like taxes on the same commodities, albeit at a later stage; and *profit taxes*. Given the different bases for these – respectively: land conceded, commodities produced, commodities exported and profitable business operations – these types of fees have different temporalities and challenges when it comes to collection by state officials. Concession fees are typically payable whether or not projects are developed, and are thus at the low-risk end of the spectrum for host governments. Also, since they are typically paid from the beginning of the concession period rather than the beginning of production, they are often used to incentivize against speculation (holding a concession without developing it). Royalties are only slightly higher-risk, requiring first, that projects get developed and second, that they produce commodities that can be reliably measured or estimated at the production site (e.g. by counting things like mature rubber trees, tons of ore mined, the amount of timber harvested of a certain species, etc.). Export duties and profit taxes are more difficult still, both requiring a degree of auditability that is often practically impossible due to the need to reliably police international borders and examine company accounts, respectively (To et al. 2014; Mehrotra et al. 2020). While Lao tax policy refers to all of these types of taxes, its emphasis – and ours as well – is on the “upstream” end where concessions and commodity production are (relatively) easier to measure.

each type (fee and royalty), with each type including a higher and a lower per-unit variant.

Our analysis of this space of potential taxation implies significant opportunity costs inherent in the status-quo approach to taxation, but also reveals an important regulatory struggle that has been occurring largely beneath the surface as local authorities have experimented – often unsuccessfully – with more robust approaches to taxing concessions. Specifically, we argue three interrelated points: First, using the significant but often unappreciated range of taxation options as a basis for our analysis, we argue that Laos's rubber concessions imply a potential cumulative tax-revenue stream of tens to hundreds of millions of dollars. This is a significant value, especially if higher-scenario approaches to taxation are considered, and it highlights the extent to which under-taxation has amplified and reinforced the initial, highly localized injustice of land grabbing. Second, we argue that this value is roughly the same order of magnitude as that of the smallholder lands lost to those same concessions, and that while this hardly justifies the land-taking in the first place, it does suggest at least a theoretical possibility of after-the-fact restitution, however incomplete, for the communities involved. Third, we highlight the scalar politics that sit at the heart of the Lao case as a cautionary tale for other contexts. As evidenced by recent debates among Lao politicians, Laos is on the brink of collecting more tax dollars from its substantial area of productive concessions. Yet much of this interest is driven not by a desire to remedy the original dispossession, but as a grasping effort to help address the country's increasingly desperate financial situation. While we argue that the heightened legibility created through concession inventorying should be used to address the original rural dispossession, we note that the same problem that facilitated concessions in the first place – the prioritization of investors' needs over rural communities' – risks being replicated all over again. Concession legibility represents not a panacea to under-taxation, but a whole new space of techno-political contestation as more complete pictures of concessions' spatial and economic operations come into view.

This research draws on a mix of qualitative and quantitative data, most of which was produced under the auspices of Laos's second Land Concessions Inventory (LCI) update, a process of that took place between 2014 and 2017 (see section 3.3). While centered on a series of scenario-based calculations explained in section 4.2, our analysis also relies to a lesser extent on qualitative evidence about the taxation process collected by both authors: by the first author in 2018 (opening sketch) and by the second author in 2014 and 2017 as part of consultations with state officials in workshops undertaken as part of this LCI update. In section 2, we begin with a review of the wider literature on taxation and development, focusing on the way taxation figured centrally in early responses to the global land rush but has since fallen largely off the radar. We then examine Laos's concession-governance landscape generally in section 3 and with respect to rubber, our chief case study, in section 4. Our most significant findings are presented in sections 4.1 on existing rubber taxation plans and section 4.3 on potential rubber taxation revenues, derived using the scenarios elaborated in section 4.2. We discuss the significance of these findings in section 5, focusing on the question of outstanding unmet land compensation. We then conclude briefly in section 6. Additional methodological details are provided in sections 3.3 and 4.2 as key topics are introduced.

2. Land taxation and economic development

For the better part of three decades, governments across the global South have sought to increase their revenue generation capacities amidst a backdrop of endemically low fiscal legibility and the downward pressure on taxation brought by trade liberalization and the quest for foreign investment (Ong, 2000; Peck & Tickell, 2002; Carden, 2019). Even under pervasive policy liberalization, taxation has remained ambiguous: if the general policy turn toward liberalization was often couched in language of “letting markets work,” scholars have been quick

to point out that the market fundamentalism of the early 1980s was, in the early 1990s, increasingly tempered by what Gore (2000: 792–93) calls “the so-called market-friendly approach to development,” which pursued trade liberalization and foreign investment while also “recognizing more fully the legitimacy of state intervention in cases of market failure.” Land taxation in particular – both of private land (via titling) and of state land (via tax policy and specific clauses in concession agreements) – occupies this latter space, offering systems for enhancing state revenue collection from a whole variety of productive land uses, while also (as elaborated below for the case of Laos) creating a complex landscape of exceptions and possibilities for tax avoidance. As investment-seeking countries also competed with one another in a veritable race-to-the-bottom for tax breaks, the techno-political systems that govern land at the scale of productive and legible parcels have inevitably been caught in the middle.

Taxation – more specifically a *lack* of taxation – was a significant theme in the literature that helped garner early attention to the rise in transnational land deals in the global South. Against the often staggeringly large area numbers that accompanied the boom in land deals announced in the mid- and late 2000s (Grain, 2008; Diouf, 2008; Anseeuw et al., 2012b), the often staggeringly *low* rates at which these deals were being taxed figured prominently in worries by activists and scholars that they augured a new global “land grab” (Cotula, Vermeulen, Leonard, & Keeley, 2009; De Schutter, 2011; Anseeuw et al., 2012a; Cotula, 2011). At the time, taxation was often described as a potential mechanism through which land deals could help improve economic and social outcomes in host countries (Deininger & Byerlee, 2011: 22; African Union et al., 2010; World Bank, 2010). But despite this potential, critics were quick to note that the low tax rates and extensive tax breaks being observed were part of policy packages that governments across the global South had been offering investors since the trade-liberalization push of the 1990s in their attempts to attract foreign capital (Cotula et al., 2009; Horne, 2011a,b; UNCTAD, 2009).

Over the last decade, however, despite attracting growing attention from economic geographers for its role in spatial organization (Tapp & Kay, 2019), taxation has been notably absent from the “literature rush” (Oya, 2013) that has sought to make sense of the new realities of transnational land deals. This literature has included a diverse range of topics, from case studies to methodological debates to comparative political economy and legal analyses to global-scale spatial analysis (e.g. Borrás et al., 2012; Scoones et al., 2013; Ndi & Batterbury, 2017; Özsü, 2019; Liao et al. 2021). While the value of the land in question has remained central to these examinations, attention to taxation per se has been minimal.³ This made sense initially. As governments used tax breaks and permissive policies more generally to incentivize foreign investment, the bulk of the expected benefits were supposed to be of the “indirect” variety – things like jobs, infrastructure and economic growth more generally (Cotula, 2011; Anseeuw et al., 2012a). Given these expectations, it is hardly surprising that much of the initial wave of research on land-deal impacts focused not on the “missing” taxation, but on questions of performance related to livelihoods and infrastructure – both those created by the deals and those destroyed or eroded through the processes of dispossession they often brought (Kenney-Lazar, 2012; Davis et al., 2014; Baumgartner et al., 2015; Hufe & Heuermann, 2017; Zoomers & Otsuki, 2017; Bottazzi et al., 2018; Li, 2018; Fitawek et al., 2020).

With over a decade now passed since the first worries about the global land rush were articulated, it now makes sense to reconsider taxation explicitly for at least two reasons. First, as transnational land deals have developed, it is increasingly clear that not only have their negative impacts been substantial, if still difficult to measure (Rulli et al., 2013; Liao et al. 2016, 2020, 2021). In addition, the hoped-for

benefits like jobs and new infrastructure have been underwhelming at best. Across the global South, investors have flocked to existing infrastructure rather than built their own (Messerli et al., 2014), and have mirrored many of the wider effects of recent economic globalization (e.g. Ferguson, 2015) in creating labor opportunities that are precarious in both the economic and ecological meanings of that term (Hufe & Heuermann, 2017; Hett et al., 2020; Nanthavong et al., 2021; Nanthavong et al., 2022). Moreover, they have generally done so on land that was previously in use, often damaging existing and already marginal livelihoods in the process (ibid.). As these problems have become increasingly apparent, the sorts of redistributive imperatives inherent in taxation have become ever more relevant.

Second, as concession inventory processes have themselves advanced, the enhanced legibility they have created has made it increasingly clear that the strategic choice to keep taxation rates low – even if true in a general sense – was only one piece of a much more complex subnational regulatory story. As our opening sketch suggests, far from being deliberately shunted to the side, taxation has remained an important, if often hard-to-see, arena of internal governance politics. This includes parallel taxation efforts – potentially competing, but also potentially complementary, as we discuss below – such as those levied by central and local authorities; as well as uneven rates of taxation (by the same authorities) that, in practice, often remain opaque even to state actors with a mandate to investigate them (e.g. Hett et al., 2020). Taxation, in sum, never left the global land rush, even if it has been largely out of sight for a while. Today, as the governing of transnational land deals challenges policy-makers to revisit the question of how to best improve their economic and social outcomes of foreign investments (Liao et al., 2021; Nanthavong et al., 2022), and as the study of “fiscal geographies” gains precedence more broadly in making sense of developed landscapes (Tapp & Kay, 2019), these previously deprioritized questions about taxation demand to be revisited.

Our opening sketch notwithstanding, Laos offers a useful case for such a revisit due to its recent experiences with concession inventorying (Heinimann & Messerli, 2013). Beginning around 2007, in response to a growing awareness of concession-related land conflicts proliferating in rural areas (GTZ, 2007, 2008; Dwyer, 2007), central-level Lao officials had launched a regulatory counter-movement aimed at what the then-prime minister called “improving our strategy and addressing previous shortcomings” (Vientiane Times, 2007b). As part of this, Laos’s central government also began working with international donors to create an inventory of land concessions across the country (Nanthavong et al., 2009). This effort, undertaken by Laos’s newly created National Land Management Authority, encountered the full range of logistical and bureaucratic hurdles that might be expected from such an attempt to increase central oversight over local government land prerogatives. But the inventory process – both in its initial iteration, undertaken between 2007 and 2010, and a subsequent update finished in 2017 – has nonetheless substantially increased the legibility of agribusiness concessions throughout the country (Hett et al., 2020; Ingalls et al., 2018; Nanthavong et al., 2020; Hett et al., 2015; Schönweger et al., 2012). In doing so, it has helped make this nexus of legibility and regulation a space of increasingly active regulatory debate, as elaborated below.

The country’s rubber sector provides a compelling place to examine these techno-politics in action. Since the early 2000s, rubber has been an important plantation commodity in Laos and more widely across mainland Southeast Asia (Fox and Castella, 2013; Ozdogan et al., 2018; Hett et al. 2020). Rubber exemplifies at once the perception of the region as a land-abundant frontier for new investment (Barney, 2009; Dwyer, 2015; Lu & Schoenweger, 2017) but also, as that perception has become increasingly challenged by events on the ground, the concession-related land conflicts that have followed from it (Barney, 2007; Obein, 2007; Shi, 2008; Baird, 2010a, 2011; Laungaramsri, 2012; Global Witness, 2013; Dwyer & Sokphea, 2016). Rubber has been a sectoral focus of investment cooperation between Laos and two of its most important bilateral partners, China and Vietnam, whose state-owned enterprises

³ For an exception, see Baird (2020: 404), who notes the shortage of government revenue from plantation concessions.

and private firms have received the bulk of the over 200 concessions of so-called state land allocated for rubber development since the early 2000s (Hett et al., 2020: 39, 46, 53). While the details of concession development differ from place to place even in Laos (Dwyer, 2014, 2022; Kenney-Lazar, 2018), rubber has consistently provided an arena for debating and adjudicating wider national debates about land governance, foreign investment and economic development (e.g. Alton, 2005; Baird, 2010a; Kenney-Lazar, 2012; Lu, 2017; Shi, 2008; Vientiane Times, 2006a, 2006b, 2007a, 2008, 2009). Rubber ranks first by area among agri-plantation concessions, with over 200,000 ha granted, according to Laos's most recent concession inventory, and over three quarters of this actually developed (Hett et al., 2020: 53). Already generating significant exports (which are still growing, as younger plantations continue to mature), rubber concessions exemplify the choices that governments face when considering whether, how and how much to tax foreign land deals.

3. A concession landscape

Mirroring wider patterns across much of the global South, since the 1990s Lao investment and tax laws have embraced a range of incentives and exemptions for foreign capital. Laos's 1995 Tax Law, for example, pioneered an approach that has continued through later iterations and elaborations, specifying certain sectoral and geographic priorities while also leaving significant latitude for case-by-case negotiation and decision-making. The law names tax exemptions for priority activities that in sectors associated with industrialization and rural development – for example, the “import of crop seeds, animal breeds and insecticides” and “forestation activities, industrial trees and fruit planting” (art. 9). Tax exemptions or the “payment of profit tax at a discount rate” are listed for priority projects, with certain key details (e.g. the timing of exemptions, or the determining of what constitutes a “priority project”) left to “the concerned committees” (art. 31). In addition, the law lays out a geographic incentive structure based on remoteness, offering the lowest profit taxes to investments in “mountainous and remote areas (10 percent)” as compared to “rural and lowland areas (15 percent)” and “urban areas (20 percent)” (art. 38). Such prioritization schemes have been elaborated and adjusted in subsequent revisions to investment and tax laws and regulations, such as the 2004 and 2016 revisions to the laws on Investment Promotion, the 2005 and 2011 revisions to the Tax Law, and the 2009 regulations on land-based investments discussed below.⁴ Collectively, these have attempted to draw investment into “underdeveloped” areas of the country – in both the *impoverished* and *under-exploited* meanings of that term – while also grappling with the tradeoffs of the incentives these policies create.

Among the most heavily debated of these “incentives” has been the extensive granting of state land concessions (*samphan thi din khong lat*). Concessions, in general, provide developers with exclusive access to resources that are putatively state-owned; these can apply to land-based resources such as timber or hydropower, or other arenas of state monopoly like gambling or the control of imports and exports. By providing monopoly use of an expensive-to-develop resource (e.g. a hydropower site, a mineral deposit, a “degraded” forest), land concessions incentivize resource use, and are used widely by capital-poor, resource-rich states under various types of benefit-sharing agreements (Yergin, 1990; Ferguson, 2006; Vitalis, 2009). While they have the advantage of

allocating the business risk to the investor, thereby incentivizing development (Whittington, 2018), they have proven controversial since they offer a legal way to enclose smallholder agricultural landscapes under the guise of “state land” allocation and various forms of “improvement” (Alden Wily, 2012; Dwyer, 2017).⁵ This matters especially in the plantations sector, where the resource itself – arable land – is often already in use by local communities (Özdoğan et al., 2018). As a German-funded advisory study noted in 2006, just as concessions were emerging as a key regulatory problem in Laos, the absence of a pre-existing map or inventory of state lands gave investors an especially free hand in identifying “appropriate” land. By allowing them to either hire state Agriculture and Forestry staff to survey for them or simply do the surveys themselves (GTZ, 2006: 12–13; also see Barney, 2009; Baird, 2010b), investor-directed surveying created a significant conflict of interest about which lands were “available” versus which ones were already in use by local farmers. In such a context, the incentive to find available land for investors articulated with the means to do so, often transforming the potentially protective regulatory role of the local Lao state into a coercive means of corporate land access.

3.1. A “not yet fully developed income source”

Laos's concession landscape has been especially opaque due to the number of, and frequent lack of coordination between, the various state actors involved. As the country's concession boom took off in the early 2000s (as investors recovered from the 1997 Asian financial crisis), central-level Planning and Investment officials found themselves competing with both provincial and district authorities to attract entrepreneurs both foreign and domestic. Despite restrictions on the sizes of the projects they were allowed to approve, local authorities “often exceed[ed] these limits” (GTZ, 2006: 13), showing themselves adept at working with concessionaires, often by building on their decade-plus of experience trading timber quotas for local “construction” projects (ibid.; Dwyer, 2022). Laos's concession boom thus yielded unprecedented economic growth, but also produced a diverse array of concession-related conflicts with local users that reflected both officials' readiness to claim “state-owned” lands (Barney, 2009; Baird, 2012; Kenney-Lazar, 2012, 2018; Dwyer, 2014; McAllister, 2015) and the often decentralized and ad-hoc nature of the concession process itself (GTZ, 2006; Schönweger et al., 2012; Dwyer, 2013; Lu and Schönweger, 2019).

Through the mid-2000s, the ad-hoc, decentralized and heterogeneous nature of concession-making in general extended to concession tax and fee arrangements as well. Despite the legislation-based approach mentioned already, a number of additional factors combined to produce a wide range of actual tax and fee agreements; these factors included the diversity of actors involved in concession-making, these actors' frequent de facto competition with one another, and the lack of a model concession contract outside the hydropower sector (GTZ, 2006: 15). As the German study quoted above noted, Lao provinces set concession fees “in several ways and all methods need further improvement” (GTZ, 2006: 20). Surveying the available data from 2004 and 2005, the same study found that fees from mining, agriculture and plantations contributed a mere 0.7 percent of the annual revenues derived from state assets, as opposed to 5.9 percent from leasing developed (i.e. urban) land and 17 percent from timber royalties. The study's authors thus opined that “the persistent lack of a centralized management system for investment at provincial levels serves the investor, but is a disadvantage to state authorities and limits revenue” (GTZ, 2006: 13). Reflecting on the “bits and pieces of information about state land

⁴ The 2016 Investment Promotion Law, for instance, altered the profit tax (*akon kam lai*) exemption from the percentage difference listed above to being based on timing: investments in the most remote areas are currently given exemptions of 15 years, while those in more accessible areas are given seven-year exemptions (art. 11). Despite these elaborations, confusion remains about how to operationalize these three remoteness categories; one recent (but not widely shared) government map attempts to do this on a district-by-district basis.

⁵ Concessions have other disadvantages as well, such as the risk that they return project areas to government control at the end of the useful life of the resource (e.g. a silted up hydropower reservoir or an economically exhausted mineral deposit) or allow developers to avoid responsibility for addressing long-term social and environmental impacts.

[scattered among various offices] at central and local levels' and the resulting absence of "any standard procedures ... before signing lease and concession agreements", the study lamented that the "very low earnings from state land leases and concessions indicate that the [Lao government] has not yet fully developed this income source" (GTZ, 2006: 9, 34).

3.2. A decade of reforms

In the late 2000s, Lao authorities began a process of trying to standardize concession-making as part of an ongoing and multi-pronged regulatory initiative that had begun with the creation of a National Land Management Authority (NLMA) in 2005. Fueled by the study quoted above, as well as by a series of other negative internal and public reports about individual plantation concessions (e.g. *Vientiane Times*, 2006a, 2006b, 2007a; also see Dwyer, 2007; Baird, 2010a), Laos's then prime-minister announced a moratorium on new plantation and mining concessions in mid-2007 (*Vientiane Times*, 2007b), and subsequent moratoria in 2009, 2012 and 2018 (Hett et al., 2020: 2). For our purposes, the two most relevant parts of this effort have been, first, the launching of Laos's national land concession inventory (LCI) in 2007; and second, a pair of 2009 regulations that attempted to standardize concessions' regulatory architecture and, as part of this, to standardize concession fees. We discuss these in turn.

The LCI was begun by the NLMA, whose creation signaled an intent to centralize control over land governance both vertically over provincial- and district-level authorities, and horizontally over sectoral ministries like Agriculture & Forestry and Energy & Mining, whose overlapping development plans were increasingly coming into conflict. Initially supported by the German agency for Technical Assistance (GTZ) and later by the University of Bern's Centre for Development and Environment (CDE) as part of the NLMA's 2011 absorption into the newly created Ministry of Natural Resources and Environment (MoNRE), the LCI's effort to create a national map and associated data set of land concessions has also yielded a great deal of research about concession-making and associated land governance more generally (Schönweger et al., 2012; Hett et al., 2015; Hett et al., 2020; Nanhthavong et al., 2020). This data set forms the basis of our calculations, and is discussed more below.

Two 2009 regulations provided a roadmap for translating the increasingly clarified spatial data on land concessions into expected revenue streams. The first was a prime-ministerial decree (no. 135, May 2009) that specified (among other things) that concession-holders are subject to multiple types of fees, including concession fees (*kha sampathan thi din*), royalties (*kha sapphanyakone thammasat*), taxes (*phasi*), customs fees (*akone*) and any "other fees as specified by law" (article 4). Reflecting a focus on concession fees (as opposed to export duties and profit taxes, both of which continue to be subject to widespread exemptions⁶), the second regulation was a presidential statute (no. 02, July 2009) that set per-hectare minimum fees for a variety of concession types based on sector, location and commodity. Although they allowed local authorities to negotiate *higher* fees on a case-by-case basis, these regulations sought to impose a minimum "floor" on what, prior to 2009, was a heterogeneous and opaque mix of practices. (That earlier status quo was perhaps best reflected by the assertion in the study quoted above that "granting state land free of charge, no matter what the reason, should be avoided" (GTZ, 2006: 21).) At the same time, Lao officials have continued to tinker with the precise incentives and tax breaks offered to concessionaires. While a detailed review of these incentives and exemptions is beyond the present scope, the breadth of these exemptions is telling. Despite its stated goal of increasing state

revenues via concession fees, the first of the 2009 regulations waived concession fees prior to the beginning of commodity production for activities involving "high tech", innovation, green technology, organic production, rural development and poverty reduction (art. 42; also see 2016 Revised Investment Promotion Law, art. 9). As elaborated below, this has significant implications.

3.3. The techno-politics of concession taxation

Between 2014 and 2017, Laos's first concession inventory (Schönweger et al., 2012) was updated and expanded using a methodology and institutional architecture developed jointly by the Lao Ministries of Natural Resources and Environment (MoNRE), Planning and Investment (MPI), Agriculture and Forestry (MAF), Energy and Mines (MEM), and the University of Bern's CDE, mentioned above. Aimed at knitting together the horizontal and vertical fractures among the various authorities involved in concession governance, the update process also included two rounds of multiple meetings at the subnational level: 18 provincial coordination workshops that took place prior to data collection; and nine regional results workshops after data collection, in which results of the update were discussed. The second author's involvement in these meetings provided useful (if still limited) qualitative data, described below, about the way that various officials experienced and understood concession taxation.

The data update itself consisted of two nested efforts: first, a census of land leases and concessions covering 1,521 projects in the agricultural, mining and hydropower sectors; and, second, a more in-depth, sample-based study of 296 projects from nine representative provinces. Of particular relevance to our study, and in contrast to much of the international data on land deals, the LCI update included not only figures about areas and locations allocated to concession projects via their contracts and concession agreements, but also measurements of area actually developed that were based on a participatory mapping process conducted with local officials using high-resolution satellite imagery (Hett et al., 2018: 4). These "area developed" figures thus provide a significant improvement on contract- or media-based area data and, in our view, offer a unique opportunity for investigating the taxation question in more detail.⁷

Our modeling effort, described in section 4, emerges from one of the LCI update's central findings about concession taxation: that despite the extensive vertical and horizontal coordination described above, actual revenues from concessions remain essentially a black box – at least outside the close confines of the Ministry of Finance. Describing the in-depth "investment quality" study of the 296 land deals referenced above, Hett et al. describe the "limited data availability" on concession "payments of fees, royalties and taxes" in revealing language:

For more than 70 percent of all deals (212 deals), the assessment of this indicator was not possible The ability to generate revenue from land deals through fees, [r]oyalties, and taxes paid was one of the main expectations of the [Lao government], and it was observed here that these revenues are collected by Financial Sector at the central, provincial and district levels across the country annually. Unfortunately, in this assessment, data from the [Finance Ministry] could not be accessed. Thus, there is an urgent need to make these data available and accessible in order to assess this indicator better. (Hett et al., 2020: 110)

The narrative of poor internal coordination is a long-running theme in Lao development discourse (e.g. Chamberlain, 2001; GTZ, 2006; Voladet, 2009; Dwyer & Ingalls, 2015), but its persistence despite the explicit efforts described above is telling. Perhaps even more revealing

⁶ In addition to the exemptions discussed above, the 2011 Tax Law specifies exemptions to export taxes (*phasi song ork*) for commodities produced by land concessions (art. 60; also see, e.g. Dezan Shira & Associates 2017).

⁷ For additional methodological details on both data sets, see Hett et al. 2018 and Hett et al. 2020. For more on the *area developed* data in particular, see Hett et al. (2020: 8, 16–17, 25).

are some of the public comments made by various state authorities at the consultation meetings that took place both before and after the LCI data update. One category of comments highlights local officials' apparent reliance on investors for key information about taxation, as well as the misperception common among many local authorities that investors can only be taxed at one level of government. District officials, for instance, often reported that investors told them they had paid tax at the provincial level, only to hear later that provincial authorities had heard the same thing but with reference to paying tax at the national level.⁸ Another set of comments gestured to the political-economic stakes of the concession mapping being done by the LCI update, while also highlighting its limits. These comments concerned the sort of thing described in the opening sketch, and had local officials (in both sets of workshops) asserting that they could not collect land taxes on concessions because these projects had not yet signed land-concession agreements that reflected the precise geographies of plantation development – despite the fact that the plantations had been in the ground for years. While often attributed to a shortage of both capacity and financing, this situation reflects the power imbalance highlighted in both sets of comments, in which deference to investors seems to be the rule and a strong regulatory hand the exception. Overall, these comments added up to an aggregate situation in which many local authorities revealed that they did not know whether investors had paid taxes or not.

These professions of gaps and ignorance, while highly revealing of the political economy that underlies the mapping of concessions, must not be regarded as the end of the story. In section 4, we use Laos's rubber sector to examine the data that *are* available about project-scale taxation practices; while limited vis-à-vis the landscape of rubber concessions overall, this information is nonetheless highly revealing. In the process, we also revisit the question of royalties, mentioned only briefly above, but pursued – at least haltingly – by provincial authorities in at least one rubber-prioritizing part of the country. By way of transition, it is important to emphasize the structural conflict between the mix of opacity, exemptions and heterogeneity described above and taxation's social aims of fairness and wealth redistribution. Laos's 2005 Tax Law commits clearly to the latter, explaining the purpose of taxation as to “justly equalize revenue among all levels of peoples, and ensure redistribution by the State ... to contribute to socio-economic development” (art. 1). In the sections that follow, we explore this goal in the context of concession-making in Laos's rubber sector.

4. Concession taxation in the Lao rubber sector

As noted above, recent research from Laos's land concessions inventory has revealed an increasingly sharp picture of the geography of individual concessions, while also highlighting the problem of ongoing opacity when it comes to concession-tax revenues. In this section, we use the rubber sector to examine concession taxation in more detail by first presenting additional data on province- and project-scale taxation practices (section 4.1). We then use these data to derive four scenarios that cover different portions of the theoretical space of concession taxation (section 4.2), and present the results of these scenarios under a model of expected annual taxation (section 4.3). We discuss the implications of these calculations in section 5 and offer brief conclusions in section 6.

4.1. Rubber concessions and taxation: A more granular view

Rubber figures centrally in both the LCI update and the sample-based data discussed above, comprising 168 active concession projects in the former (Figure 1) and 63 in the latter. In the LCI update, rubber is predominant among agricultural and tree plantation commodities in particular, as well as resource commodities in general, registering first

among the former and second among the latter in terms of area granted (217,125 ha as compared to 235,206 ha granted for gold mining); and first in total number of projects (213, including inactive) and, most importantly for our purposes, land area actually developed (over 150,000 ha) (Hett et al., 2020: 35, 49). With roughly a third of total concession area, a full half of area developed (ibid.: xiv), and at least 1,000 ha of land concessions per province in 14 of Laos's 18 provinces (Figure 1 and Table 1), rubber exemplifies the country's concession boom in ways few other commodities do.

As summarized in Table 1, in most provinces nothing like a single concession taxation policy emerges from either the LCI data or the investment quality study mentioned above.⁹ Especially prior to 2009, expected taxation rates varied widely between projects in a single province, reflecting both the heterogeneity described above for concessions more generally, and the multiple granting authorities involved in the rubber sector.¹⁰ Centrally approved rubber concessions are in the minority, comprising only 24 out of 168 active projects, but they tend to be much larger, making up 68% of overall rubber concession area and having a median size of over 2,700 ha compared to 150 and 100 ha, respectively, for concessions issued by provincial and district authorities.¹¹ This helps explain the heterogeneity of observed taxation plans, since most projects were negotiated by provincial (and to a much lesser extent local district) authorities. In Champasak, Luang Namtha and Vientiane provinces, for example, annual concession rates varied by two orders of magnitude (from \$3 to \$700/hectare in Champasak and from \$1 to \$400/hectare in Luang Namtha); this is especially significant since these two provinces rank first and third in the country in terms of actually developed rubber concession areas. Other provinces, such as Savannakhet (fourth in area), Luang Prabang (fifth) and Oudomxai (14th), had variation over a single order of magnitude: Savannakhet's annual taxation rates ranged from \$6 to \$30/hectare, while Luang Prabang's ranged from \$3 to \$30/hectare. Although it is difficult to generalize due to lack of data, most of these fees (especially at the low end of the spectrum) were far lower than comparable lease rates for private land (cf. Lyttleton et al., 2004: 42, 44; Vongvisouk and Dwyer, 2017: 15).

Provinces also varied in their approaches to *when* tax assessment began, reflecting differing opinions about whether or not to tax concessions prior to beginning commodity production (also see next section). Vientiane and Luang Prabang provinces tended to begin taxation immediately upon concession signing; Savannakhet, in contrast, offered a range of delays (2, 6 and 8 years, depending on project), the latter two allowances presumably referring to expected maturation times for rubber trees. Other provinces, including the three with the highest concession areas (Champasak, Attapeu and Luang Namtha), varied internally, offering multi-year exemptions to some projects while levying concession fees immediately for others.

Summarizing the available data on provincial approaches to rubber concession fees, Table 1 illustrates both this wide range of taxation approaches and the highly variable degrees of available data. Reflecting the limitations on available data, for only three of Laos's 18 provinces are anything close to complete data available: the LCI contains project-level data on the taxation method for 8 of 10 rubber concessions in Khammuane, 6 of 7 in Bokeo, and 4 of 5 in Luang Prabang. Three other provinces (Champasak, Savannakhet and Vientiane) have available data for roughly half of their rubber concessions, while three other provinces – including the high-concession-area provinces of Attapeu and Luang

⁹ Although our focus here is on the rubber sector, the same pattern applies to other commodities as well.

¹⁰ Most of the information shown in Table 1 predates the 2009 regulations discussed above, but not all. Table 1 does not include dates because there is no obvious difference in data availability or taxation approach between pre- and post-2009 projects in the raw data that it summarizes.

¹¹ Authors' own calculations based on LCI update data.

⁸ Second author field notes, LCI update (this whole paragraph).

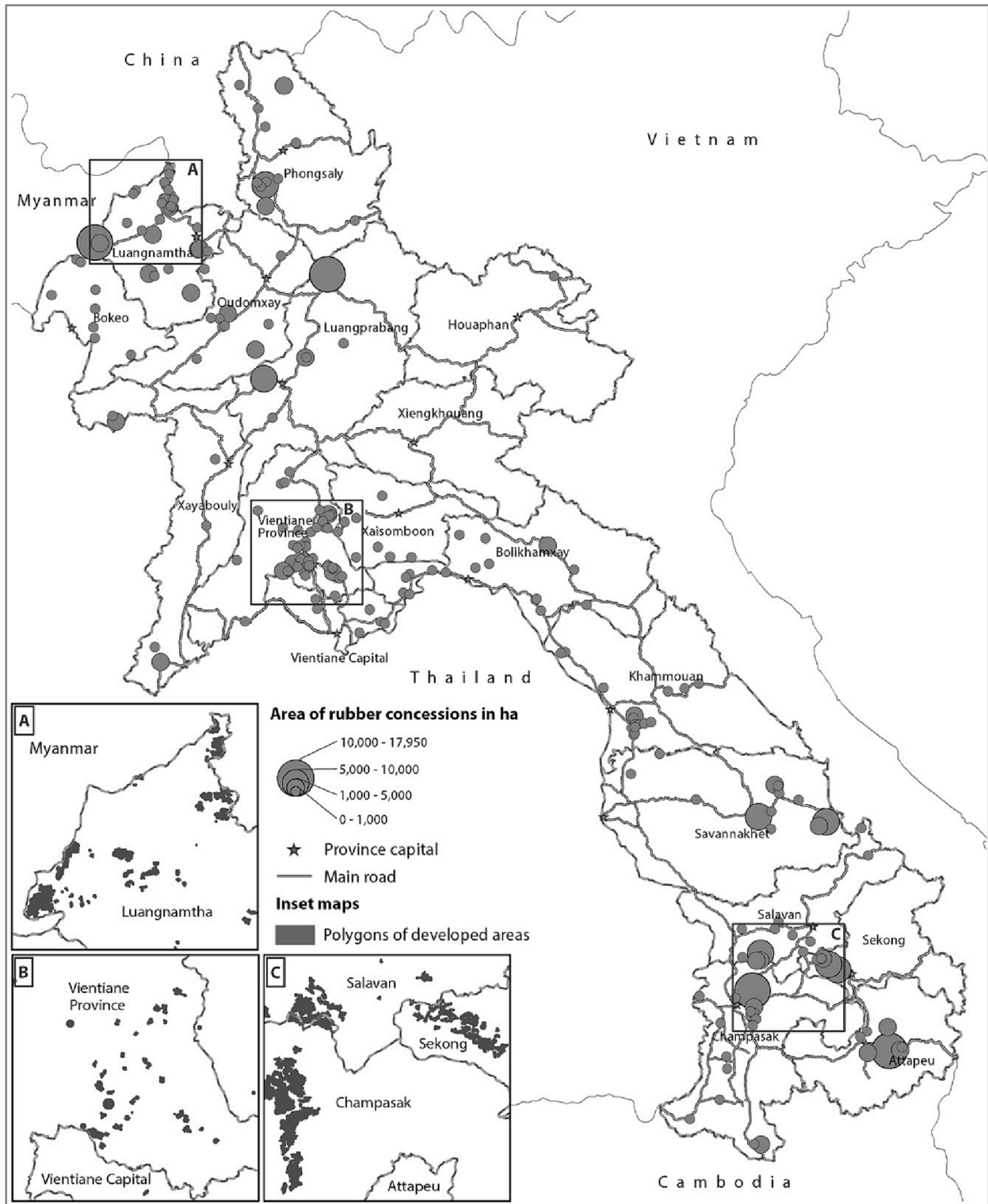


Fig. 1. Rubber concessions in the LCI update (source: LCI update).

Namtha – have it for roughly a third. When assessed by project area, however, this paucity of information improves, reflecting the fact that available information tends to skew toward larger, centrally granted projects. Although taxation plans are only available for only 68 out of 168 active projects (40 percent), they are available for 95,908 of the overall 153,665 ha (62 percent) of concession-developed rubber plantations. As noted above, however, these data are not about actual taxes paid, but about the taxation requirements specified in companies’

individual project documents.

Despite provinces’ heterogeneous and often opaque approaches to taxation, one provincial taxation approach that is especially relevant to our study is Luang Namtha’s 2006 rubber tax policy. Issued during the boom years of rubber planting in the province widely seen as both the gateway to China and the heart of northern Laos’s rubber sector, this policy levied a tax on *individual* rubber trees at the time they came into production. It was a progressive tax, setting a comparatively high rate

Table 1Taxation approaches by province (ranked by total rubber concession area)¹ (source: LCI update).

| Province | Approach | Total rubber concessions (ha) | Concession projects with available taxation data |
|--------------------|---|-------------------------------|--|
| Champasak | Concession fees range from \$3 to \$700/ha/y (median \$12), and include both immediate and delayed assessment (8-yr exemption) | 33,979 | 9/16 |
| Attapeu | Small sample: \$40/ha/y with 6-year exemption for one large (15,000 + ha) concession; \$30/ha/y for a second (smaller) project; no data for other projects | 29,072 | 2/5 |
| Luang Namtha | Concession fees range from \$1 to \$400/ha/y (median \$30), and include both immediate and delayed assessment (2, 3 & 8-yr exemptions); province also levied an area-based tax on latex production in 2006 (see text for details) | 23,444 | 11/30 |
| Savannakhet | Concession fees range from \$6 (4 projects) to \$30/ha/y (1 project), with delayed assessment of varying lengths (2, 6 & 8-yr exemptions); multiple projects include the caveat that fees will be increased by 5% every 5 years | 15,263 | 5/11 |
| Luang Prabang | Concession fees range from \$3 to \$30/ha/y (2 projects each rate), with assessment beginning immediately | 9,934 | 4/5 |
| Khammuane | Concession fees range from \$2 to \$8/ha/y (median \$5), with assessment beginning immediately; in one case, collection is every 5 years | 9,343 | 8/10 |
| Sekong | Small sample: \$6/ha/y with 8-year exemption for one large (\$3,000 + ha) concession | 6,196 | 1/6 |
| Vientiane Province | Concession fees range from \$1 to \$108/ha/y (median \$3), with assessment beginning immediately; 12 of 14 projects with data are \$3/ha/y | 5,791 | 14/26 |
| Bolikhamxai | Concession fees begin low (\$2/ha/y or \$4/ha/y) and increase periodically; two variants: (a) \$2 for first 5 years, \$3 in | 5,280 | 4/14 |

Table 1 (continued)

| Province | Approach | Total rubber concessions (ha) | Concession projects with available taxation data |
|------------------------|--|-------------------------------|--|
| | year 8, increase by \$2 every 3 years; and (b) \$4 for first 5 years, \$6 for next 7 years, \$7 in year 13, \$9 from year 20 | | |
| Phongsaly | Small sample: \$6/ha/y beginning immediately and \$40/ha/y with 8-year exemption | 3,527 | 2/10 |
| Bokeo | Tree plantations over 0.5 ha are exempt from land tax | 3,425 | 6/7 |
| Xayaboury | No data on taxation | 3,279 | 0/6 |
| Salavan | No data on taxation | 2,039 | 0/9 |
| Oudomxai | Small sample: \$9/ha/y (unspecified when assessment begins) and \$30/ha/y with 3-year exemption | 1,773 | 2/8 |
| Vientiane Municipality | No data on taxation | 662 | 0/5 |
| Saysomboun | No data on taxation | 652 | 0/4 |
| Huaphan | No data on taxation | 7 | 0/1 |
| TOTAL | | 153,665 | 68/168 |

¹ Figures refer to area actually developed under a concession model; note that Xieng Khouang province is not listed because it has no rubber concessions according to the LCI update.

for larger plantations, and decreasing the rate for smaller plantations. Reflecting an intent to tax larger investors more, the policy taxed plantations over 6 ha in size at the rate of RMB 6 per tree per year; plantations of 2–6 ha RMB 3 per tree per year, and plantations 1 ha or less RMB 1 per tree per year (Shi, 2008: 14).¹² As noted above, this policy was intended to apply only to productive trees, deferring taxation of a commodity with already high up-front costs (generally estimated in the hundreds of USD per hectare) to the period when the “capital” is producing income. For most plantation concessions (which were far larger than 6 ha, and thus in the top taxation tier), this policy would have translated into an annual tax of a few hundred dollars per hectare, depending on exchange rates and tree spacing.¹³ For reasons about which we can only speculate – but likely due in part to the deference to investors described in the previous section – this policy was, to our knowledge, not enforced (Vongvisouk and Dwyer, 2017: 14). For our purposes, it nonetheless serves as an indicator of local *intent* to tax rubber concessions at a fairly high rate, which is often seen as international best practice due to its potential for generating local benefits from, and thus local “buy-in” to, otherwise extractive land deals (World Bank, 2010: 95; FAO, 2012: 31). Given the range of local issues associated with land concessions, locally levied royalties are thus important to consider alongside the range of low to high taxation rates summarized above when considering the “space” of possible tax revenues.

The 2009 central-level regulations discussed above combined pieces

¹² The policy (Luang Namtha Provincial Government decree No.7, December 6, 2006) did not specify whether plantations 1–2 ha would be in the lower or middle range. This tax was denominated in Renminbi, presumably reflecting its being targeted toward Chinese companies.

¹³ At an exchange rate of RMB 7 per USD and a standard tree-spacing assumption (450 trees per hectare), this would be an annual tax of \$376 per hectare after production.

of many provincial-level taxation plans, but overall coalesced on a much lower tax rate than what would have been generated by either the tree-based rubber taxes in Luang Namtha or the higher range of per-hectare rates visible in individual projects in provinces like Champasak (\$200 and \$700/hectare/year), Luang Namtha (\$400/hectare/year), and Vientiane (\$108/hectare/year). As with a number of provincial, project-scale approaches, the presidential statute specified a de facto royalty rather than concession-fee structure: rubber concessions would be taxed from the time they became productive, effectively deferring taxation for at least five years (and in some cases as much as a decade). But on the question of taxation rate, the presidential order seems to have effectively split the difference between various provincial approaches, opting for a per-hectare basis (rather than a per-tree basis) and using a rate of \$30 and \$40/hectare/year for upland and lowland rural areas, respectively.¹⁴ While significantly lower than the Luang Namtha policy in terms of expected revenues (see below), this was far higher than either the complete exemptions from taxation (in Bokeo province) or the very low concession rates common in Vientiane (median \$3/hectare/year), Khammuane (median \$5), Bolikhamxai (up to \$9), Sekong, Oudomxai and other provinces.

4.2. The space of expected concession taxation: Four scenarios

Below (in section 4.3), we present the results of modeling expected taxation rates from 161 of the 168 active rubber concessions inventoried by the LCI update under four scenarios derived from the above range of approaches.¹⁵ As Table 2 summarizes, these scenarios differ with respect to two key variables: concession fees versus royalties (which, as noted above, differ with respect to onset timing), and higher versus lower taxation rates. We provide summary information here, and additional detail – including a sample calculation of each scenario for a hypothetical 5,000-hectare concession – in the Supplemental Materials.¹⁶

- **Scenario 1. “Luang Namtha” (LNT):** Our first scenario is modeled on Luang Namtha’s 2006 rubber tax. Rubber taxes are assessed by the tree (we assume 450 per hectare), subject to plantation size classifications as specified in section 4.1 above. Since tax assessment begins with the year of rubber production, scenario 1 is effectively a royalty-based approach.
- **Scenario 2. “Savannakhet” (SVK):** Our second scenario uses a concession tax rate of \$6/hectare/year, with tax assessment beginning the year of land acquisition.

Table 2
Conceptual differentiation of concession taxation scenarios.

| | Higher rates | Lower rates |
|-----------------|----------------------------------|---------------------------------|
| Royalties | Scenario 1. “Luang Namtha” (LNT) | Scenario 4. “National” (NAT) |
| Concession fees | Scenario 3. “Champasak” (CHK) | Scenario 2. “Savannakhet” (SVK) |

¹⁴ The regulation lists \$30, 40 and 50/hectare/year for the abovementioned “mountainous and remote areas”, “rural and lowland areas” and “urban areas”, respectively. Given the prevailing interpretation of these remoteness zones on a district-by-district basis, the vast majority of Laos’s rubber concessions would fall into the first two of these categories.

¹⁵ Seven of the 168 projects discussed above are missing temporal data needed for our scenarios. See Supplemental Materials, “Rubber concessions data,” for details.

¹⁶ Scenarios are named loosely after the largest rubber-concession jurisdictions they most closely match. Given the range of approaches at the provincial level, however (see Table 1 above and surrounding text), scenario names are intended as abstractions that differentiate various approaches to taxation, not as descriptions of actual concession-taxation practice in each province.

- **Scenario 3. “Champasak” (CHK):** Our third scenario uses a similar structure to scenario 2 but with a much higher rate of \$200/hectare/year. While not typical of Champasak as a whole, this scenario represents the lower (and thus more conservative) of two high-tax rates found in Champasak (see Table 1).
- **Scenario 4. “National” (NAT):** Our fourth and final scenario is based on the 2009 central-level regulation, which specifies a range of area-based rates that begin the year of production (see section 3.2). We have simplified the fee structure specified in the original (see above, note 14) to \$30 per hectare per year, since rubber plantations tend to target “upland” landscapes.

For scenarios 2 and 3, we calculated expected tax revenues for each rubber concession based on the scenario-specific taxation scheme and two variables provided in the LCI update: the area developed by the concessionaire and the year in which the concession was granted. Scenarios 1 and 4 use the same approach, plus an additional data point for each rubber concession’s first year of production. We estimated this using a mix of satellite orthophoto inspection (n = 137 concessions) and, where shapefiles were not available in the LCI (n = 24 concessions), by assuming that rubber production began 9 years after land acquisition.¹⁷ For each concession, in each scenario we calculated a stream of annual payments for the years 2001 (the last year before concession-land acquisition recorded in the LCI) to 2020. For each concession, this 20-year stream begins to contain non-zero values in either the year of land acquisition (scenarios 2 and 3) or the first year of rubber production (scenarios 1 and 4). The total value for each scenario is the sum of the 20-year streams of expected taxation from each of the 161 projects.

4.3. Expected concession taxation: Model results

When applied to the LCI rubber concession data, our four scenarios exhibit important differences, both qualitative and quantitative. Figure 2 shows expected annual taxation returns from each scenario, while Table 3 presents the same results cumulatively.

As in the single-project example (Supplemental Materials), the two high-revenue scenarios (LNT and CHK) differ markedly with respect to both their onset times and peak revenues. CHK begins to yield significantly in 2005 and 2006 and reaches close to its maximum annual returns (around \$30 million from all projects) as early as 2008, reflecting its tight linkage with the concession boom of those same years. The LNT scenario, in contrast, reflects the royalty model of delayed taxation; its revenue numbers do not begin to take off until 2011, but when they do, they rise rapidly within five years, leveling off at almost \$60 million per year – roughly twice the expected annual return of the CHK model – in 2018, reflecting its higher per-unit approach to taxation. The LNT and CHK models both yield much higher than the two low-revenue scenarios (NAT and SVK), which reflect the same differences in onset timing but at much lower taxation rates. The NAT model’s expected revenues begin to “take off” in 2012, but they level off at the more modest annual rate of about \$4 million; the SVK model’s revenues begin to accrue revenue as early as 2003, but the annual rates of taxation max out even lower, at just under \$1 million.

When examined cumulatively, the differences between the high and low scenarios are even more exaggerated (Table 3). By 2020, the former pair of scenarios generate cumulative revenues in the few hundreds of millions of dollars each, while the latter pair generate only a few tens of millions of dollars each – a full order of magnitude difference. While the additional differences between the low-revenue scenarios are significant (almost \$28 million for NAT compared to less than half that for SVK), the two high-revenue models balance out more closely: almost \$380 million for LNT versus \$445 million for CHK. In the long run, the LNT model

¹⁷ We explain this 9-year assumption in Supplemental Materials, “Rubber concessions data.”

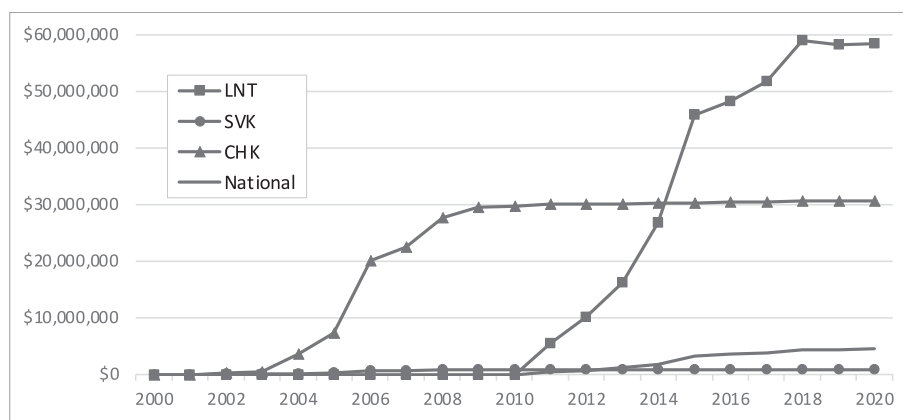


Fig. 2. Expected annual tax revenues from 4 scenarios.

Table 3

Expected cumulative tax revenues from 4 scenarios.

| Scenario | Year of first revenue | Total revenue as of 2020 |
|-------------|-----------------------|--------------------------|
| 1 LNT model | 2011 | \$381,771,324 |
| 2 SVK model | 2002 | \$13,394,743 |
| 3 CHK model | 2002 | \$446,491,428 |
| 4 NAT model | 2011 | \$28,320,271 |

obviously pays more, but this is at a cost of delayed implementation: the CHK scenario breaks the \$10-million dollar annual mark a full seven years earlier than LNT, generating multiple tens of millions of dollars during key early years of plantation development. As discussed next, had these revenues been collected, they could have been put to crucial use.

5. Discussion: To “ensure redistribution by the State”

Economists and policy-makers have long attempted to understand “optimal” rates of and approaches to taxation. In doing so, they seek to strike a proper balance between taxation as a public good, chiefly via wealth redistribution, and the putatively “distorting” effects of taxation on productive activity (Mankiw et al., 2009). Having considered the issue of taxation at length, Adam Smith looms large in such debates, although his statements on taxation point in different directions. Smith famously identified “four criteria for good taxes”: “They are (1) proportionate to incomes or abilities to pay; (2) certain rather than arbitrary; (3) payable at times and in ways convenient to the taxpayers; and (4) cheap to administer and collect” (Smith, 1937: 429). Smith also asserted quite clearly, in his discussion of property taxes in *The Wealth of Nations*, that “it is not very unreasonable that the rich should contribute to the public expense, not only in proportion to their revenue, but something more than in that proportion” (quoted in Mofid, 2016). Taken together, his statements are in tension on precisely the two issues that “optimal” taxation seeks to balance: convenience to the taxpayer versus benefit to the public.

In this paper, this tension centers on the issue of tax breaks to plantation concessionaires, both de jure and de facto. In the Lao rubber sector, and indeed within the global land rush more broadly, these breaks run the gamut from the general tax waivers and deferrals of taxation until production starts, to – at the less formalized end of the spectrum – taxation schemes that vary enormously by location and project (see section 4), ad hoc tax waivers due to negotiations spurred by low global rubber prices (Vongvisouk and Dwyer, 2017), and the situation described in the opening sketch, where low measured tax obligations are simply due to state authorities not knowing the precise area of company plantations. Additionally, and more problematically for our discussion, as we elaborate below, the very premise of claiming as state land (for purpose of granting as concessions) areas that are being used

by rural producers is, in essence, a form of tax break: even when concession fees are levied (let alone when they are waived), they are generally lower than market costs for accessing private land. Concession taxation is thus bound up in, rather than somehow parallel to, the entire process whereby much of the rural landscape is claimed as state-owned. While it is difficult to pin down exactly how and when concession-tax breaks crossed the line from their original purpose of helping spur development to exacerbating underdevelopment by adding insult to the injury of land grabbing, it is clear that this line has been crossed. The tragic irony in all of this is that even from the putative goal of using concessions to “turn land into state capital” – a longstanding pillar of Lao government development policy (KPL, 2016a; see also Dwyer, 2007; Kenney-Lazar et al., 2018) – it is increasingly clear that concessions have largely failed to do this. As they have dispossessed local land users, they have failed to turn land grabs for the private sector into returns to state coffers.

In the last few years, partially in response to the concession-inventorying efforts discussed above, a debate has emerged among Lao state officials about how to better tax land deals and, related, how to best use the resulting revenues. In 2019, for instance, as part of its wider regulatory crackdown in response to an early draft of the updated concession inventory, the prime minister’s office not only cancelled the worst-offending concessions; it ordered tax payment by and additional investigation of hundreds of others (CDE et al., 2020).¹⁸ In 2021, Laos’s National Assembly entered the fray, instructing the government to ensure that all existing land concessions pay taxes and fees¹⁹ – a marked departure from the exemption-heavy approach described above, which has characterized both the rubber sector and Laos’s foreign investment landscape more broadly. Notably, the Assembly’s rationale was that concession tax payment could help address the country’s looming financial crisis (on the latter, see IMF, 2017, 2019; World Bank, 2020; Barney & Souksakoun, 2021). While its action gestures to the significant resources at stake in Laos’s thus far under-taxed concession landscape – a point supported by our analysis above – it also highlights the fact that, if and when concession taxes were to be collected at scale, there is no guarantee that they would remain within the landscapes – let alone even the sector – where they were levied.

One could imagine a variety of legitimate, cross-sectoral uses for concession-tax revenue: for instance, helping finance a cash-transfer system aimed at addressing rural livelihood insecurity in the post-Covid era (World Bank, 2018; Laotian Times, 2021; more generally, see Ferguson, 2015); or topping up salary payments to regulatory officials as a way to mitigate the conflicts of interest that currently plague

¹⁸ These actions extended across multiple sectors, including but not limited to rubber concessions.

¹⁹ National Assembly Solution Number 03/NA, dated 10/08/2021 on Adopting National Agendas for Addressing Economic-financial Difficulties.

land-finding activities, often resulting in payments from companies to local officials for land surveying (Barney, 2009; Baird, 2010b; Dwyer, 2022). In the remainder of this section, however, we discuss a possible use for concession-tax revenue that is specific to the rubber sector and that targets the landscapes where the taxes were generated: unmet land compensation from rubber concessions' land-acquisition efforts. Even within the rubber sector, this is hardly the only possibility,²⁰ but it illustrates the significant need that exists within the rubber landscape alone, and thus makes an argument for keeping enhanced tax revenues – if and when they are collected – aimed at resource redistribution within the concession landscape itself.

5.1. Unmet land compensation

Even though concessions are legally classified as state-owned lands (GTZ, 2006; Schönweger et al., 2012), a range of sources – including many from the Lao government itself (e.g. *Vientiane Times*, 2006a, 2006b, 2008, 2009; KPL, 2016a, 2016b) – make it clear that concession-allocated lands were often already in use for a variety of livelihood activities, including smallholder agriculture, livestock grazing, and collecting forest resources for both food and income, as well as for other public purposes such as biodiversity conservation and state production forestry (Hett et al., 2020; Nanthavong et al., 2021). At the time that concession lands were developed, their legal status as state land was undercut by the fact that many developers actually negotiated with local communities for access and provided various forms of compensation when their lands were taken either “by mistake” or, more often, deliberately (e.g. Obein, 2007; GTZ, 2008; *Global Witness*, 2013; Kenney-Lazar et al., 2018; Hett et al., 2020: 79). These negotiations, however, were highly asymmetrical, in part because of the putative state ownership of the lands in question, which thus framed compensation as an act of charity rather than an entitlement that was due by virtue of prior ownership or use.

Despite having both domestic policy (in the form of the then-current prime-ministerial decree 192 on resettlement and compensation) and international law on their side (FAO, 2012), many community and individual claims for compensation due to concession-related losses were countered with a mix of coercive pressure to sacrifice in the interest of national development (Ngaosrivathana & Rock, 2007: 24) and legally narrow definitions of landed property; the latter included a putative lack of title or, in some cases, the excuse that expropriated land was still state property since it was being used communally rather than individually (Dwyer, 2013). Taken together, this excluded large areas of land from compensation that were used and managed for activities like grazing, forest-gathering, hunting and shifting cultivation (Nanthavong et al., 2020, 2021; Obein, 2007) and that figured centrally into the health and wellbeing of many rural communities (Parvathi & Nguyen, 2018; Van Der Meer Simo et al., 2019). Moreover, the limited compensation that was given was often based on replacement values that were determined one-sidedly by the same authorities who had helped companies find concession lands in the first place. As a result, the majority of villages impacted by concessions have reported negative livelihood outcomes (Hett et al., 2020; Nanthavong et al., 2021).

Concession compensation also took place in a context where the companies being asked to do the compensating were at the “cash-poor” stage of their business development cycle (Kenney-Lazar, 2012; Baird,

2011). Although this was undercut by the fact that, especially in Laos's northern borderlands, agricultural entrepreneurs were often renting land from farmers privately at rates comparable to the high-taxation rates encompassed in our LNT and CHK scenarios – and sometimes significantly higher (Lyttleton et al., 2004: 42, 44; Vongvisouk & Dwyer, 2017: 15) – it also reflects the fact that concession developers face a variety of up-front costs and are thus incentivized to minimize land-access costs in a variety of ways. Concessions, in this sense, provided a state-backed means to access land at below-market rate at a large scale, and they were thus sought extensively by investors. In contrast to cash-based compensation for lands taken, the narrative of “development opportunities” via improved employment opportunities and infrastructure was often used by companies and state officials alike. In general, these promises have not materialized on any scale sufficient to offset the land and resource access that were taken. Research conducted at the time revealed the bitter irony of (in some cases) being offered the job of clearing one's own land for company plantations (Barney, 2007), as well as the fact that the work offered to concession-impacted communities tended to low-quality jobs such as seasonal employment with low wages, and was often limited to the project development (rather than ongoing operations) phase (Molina, 2011). More recent studies have confirmed and elaborated this, showing how former land users were not only excluded from their land but also from concession-related employment, as investors brought workers from other areas, including from abroad (Nanthavong et al., 2022; Baird et al., 2019; Dwyer, 2022).

5.2. Opportunities forgone and future

Proper concession taxation could have made this history transpire very differently by making more cash available for compensation via any number of mechanisms. Taxation practices alone would not and could not have addressed the injustice of land grabbing; especially in cases where the land being taken was clearly already developed (e.g. GTZ, 2007; Laungaramsri, 2012; Obein, 2007), it should not have been acquired through a concession model at all. However, much of the land involved likely fell into the gray area of being locally used but legally state-owned by default due to lack of continuous smallholder use. Here, taxation could well have had a role to play in the negotiations that took place among rubber companies, agrarian communities and local officials. While hardly a sufficient solution – higher compensation rates offer little help to communities or land users who want to keep their land no matter what – they could have changed the tenor of at least some land-acquisition processes by providing more viable alternatives to coercion.

Laos's tax law (quoted above in section 3) lists three relevant objectives among its core purposes: (1) “rationalizing fairly the incomes between various strata of society,” (2) “acquiring incomes to the state budget,” and (3) “developing the national economy continuously” (art. 1). Although the third of these is worded a bit obliquely, these refer respectively to taxation's role in redistributing societal wealth more equitably, strengthening the state's capacity to act in the public interest using financial means, and smoothing out the disruptions that project-by-project or unbalanced sectoral development often create. Whether on a project-by-project basis or via a more pooled approach (see below), it is possible that using concession taxation to finance compensation for land loss would have improved status-quo practices significantly. While the amounts obviously would depend on taxation levels – as shown above, LNT- and CHK-type approaches translate into an order of magnitude more available revenue than SVK- and NAT-type approaches – bringing taxation into the compensation process at the time would almost certainly have undercut the critique, heard widely during the middle and late 2000s, that land was merely being “given away” to investors. Also, because land taxation relies on relatively precise areas of measured land, concession taxation could also have forced the issue of concession-land *surveying* in ways that national policy-makers had already been calling for (see e.g. *Vientiane Times*, 2007b), but that (as

²⁰ In addition to unmet land compensation, one could easily propose using rubber concession-tax revenues to supplement the low prices that at least some Lao smallholder rubber farmers receive for their product. Rubber smallholders in Laos run the gamut from household-scale producers, for whom such assistance could make an enormous difference in poverty alleviation, to urban and government elites whose “smallholdings” are typically larger (although still much smaller than concessions) and who would be presumably less deserving of such assistance (see Dwyer & Basik Treanor, 2017).

also noted above) in practice fell far short of official rhetoric.²¹

In cases where compensation is appropriate, there is nonetheless an obvious limit to taxation's ability to finance it: per-hectare rates for compensation tend to be in the multiple hundreds of dollars or more (and sometimes much more),²² whereas the concession-fee rates discussed above are in the range of tens of dollars (or, at the low end, less) to a few hundred dollars per hectare at the most. At best, this would tend toward payback times in the range of a half-dozen years at least, up to a few decades; this would clearly be unacceptable for dispossessed smallholders. And while compensation is an inherently fraught process – compensation values range widely (see note 23 and Supplemental Materials), and even the reported values say nothing of the fairness of the compensation processes involved – our point is simply this: the *aggregate* amounts of money potentially in play for taxation seem to be roughly the same order of magnitude as the amounts arguably needed for a serious conversation about compensation: both are at least in the multiple tens of millions of dollars, and at the upper end of the scenarios discussed here, in the hundreds of millions.²³ It is important not to put the cart before the horse. But the similarity in values means, in theory, that if concession taxes could be paid from one project and used to compensate affected land-users in other projects that are not as far along in the project cycle, concession tax-revenue streams could help achieve fairer and more timely rates of compensation.

This would be all the more so if royalty streams were included (Figure 3). As noted above in section 3, concessionaires are subject to multiple types of taxation as specified by law; at the very least, this would include fees on concession land and commodity-based royalties, especially if these are levied by different (e.g. central versus local) authorities, respectively. Consider this thought experiment, in which a hypothetical hectare of smallholder land is allocated to a rubber concessionaire. Over a 30- to 40-year project lifespan, one might expect something like the following revenue streams “in” and “out” of that hectare²⁴:

- Plantation development costs in the range of \$2,000: for land preparation, rubber seedlings, etc. only in year 1;
- Plantation maintenance (weeding, spraying, etc.) costs in the range of \$300 each year beginning in year 2;
- Concession fees in the range of \$30 per year, beginning in year 1;
- Royalty fees in the range of \$300 per year, beginning in year 10; and
- Rubber income in the range of \$2,000 per year, beginning in year 10 and increasing gradually to roughly twice that (\$4,000 per year) by year 20 as production ramps up.

Fair compensation rates depend on a range of factors such as soil quality, water access, road accessibility and existing infrastructure. These range widely in Laos, but for discussion purposes, let us assume a per-hectare compensation value of \$1,000. Under such conditions, concession fees alone (\$30 per year) would not come close to paying for compensation (\$1,000) on a reasonable time scale. Similarly, waiting for rubber royalties to begin to accrue would also be an unfairly long wait

(roughly a decade) for the former land-user. If, however, concession fees and royalties from a hypothetical hectare of a *different* concession project that had been allocated a few years prior could be transferred to the effected land user, one could imagine a situation where compensation could take place in a relatively fair manner on a time scale concurrent with the concession allocation; and where the tax revenue (fee and royalty) streams due from the concessionaire were not overly onerous in comparison to their income.²⁵ Such a situation would need external financing during an initial period before royalties begin to flow – one could imagine, say, using another royalty stream here such as from hydropower or mining. But once royalties begin to accrue, such a taxation model could allow for otherwise unmet compensation needs to be met. Depending on the taxation and compensation levels chosen (if, say, there was a one-time payment of \$1,000 versus a 20-plus-year revenue stream of \$300 or more each year), it is possible that at least some of the theoretically available tax revenue could also be dedicated to other purposes as well.

6. Conclusion

Appropriate and feasible levels of taxation depend on a range of factors. Justice-based approaches to taxation – those based on the principle of what James Ferguson (2015) calls the politics a “fair share” of national resource wealth – might inquire as to the fraction of concession-based productivity to which the public has a right to expect; this, in turn, would presumably depend on where and how production occurred in the first place (on public property? at cost to the public?, etc.). Given the widespread official acknowledgment of “overlaps” between concessions and existing smallholder livelihood systems, such an approach to concession taxation would inquire into the social and economic costs of these overlaps, and seek to use taxation as not just a generalized form of social redistribution throughout society, but as a targeted mechanism to partially address the “takings” upon which concession-making has so often been predicated. On the other hand, more realist-leaning approaches are less likely to ask “what is fair?” than “what is possible?” in terms of extracting tax revenue from recalcitrant and politically connected concessionaires. In such a framing, taxation is a function of negotiating power both on and off the contract's written page: tax revenues, in such an approach, are likely to be the outcome of unequal negotiations between powerful foreign investors and comparatively weaker state regulators, who may fear that the investor will simply pack up and go elsewhere, or of informal agreements where the official tax is but one part of the “real” tax, which is paid in the form of bribes or their equivalents.

Both schools of thought are present in discussions about concession taxation in Laos and elsewhere, but debates to date have too often been short on concrete numbers. Our purpose here has been to help address this, however incrementally. We have shown the range of taxation approaches for rubber concessions recorded in Laos's LCI update (section 4.1); and we have translated these into a range of plausible scenarios for taxing concessions as a group (section 4.2). As we note, the purpose of doing this is not to estimate the tax revenues that have been collected – such a number is unknowable – but to illustrate roughly the economic orders of magnitude that are at stake under different approaches to concession taxation (section 4.3). The data we present speak directly to under-taxation's implications, but also to some potential remedies, as well as the ongoing politics of claims on any additional taxation revenues. As elaborated in section 5, the millions to multiple tens of millions of dollars that comprise the *annual* range of potential concession

²¹ While the act of surveying hardly guarantees fairness or transparency – to the contrary, many communities view it as threatening – as a conspicuous activity it is often important for helping spur accountability, whether directly via the regulatory processes in which it is embedded or indirectly, through alerting communities to impending concession activity.

²² Surprisingly, despite the extensive literature on land concessions and concession-related conflict in Laos, there are remarkably few published examples of actual compensation values. For two important exceptions, see Ngaosrivathana & Rock (2007: 16-17) and Pathamavong et al. (2017: 1429).

²³ For concession taxation, see Figure 2 and Table 3, as well as Figure 3, discussed below. For compensation needs, see Supplemental Materials, “Concession-related land compensation.”

²⁴ Justification for these values is provided in Supplemental Materials, “A hypothetical hectare.”

²⁵ By our very conservative calculations (see Supplemental Materials, “A hypothetical hectare”), the taxation (fee and royalty) burden would be in the range of 15 percent of expected income when tapping begins and drop to half that as production ramps up to mature-level flows. For development that is taking place on public property, this is hardly a burdensome expectation.

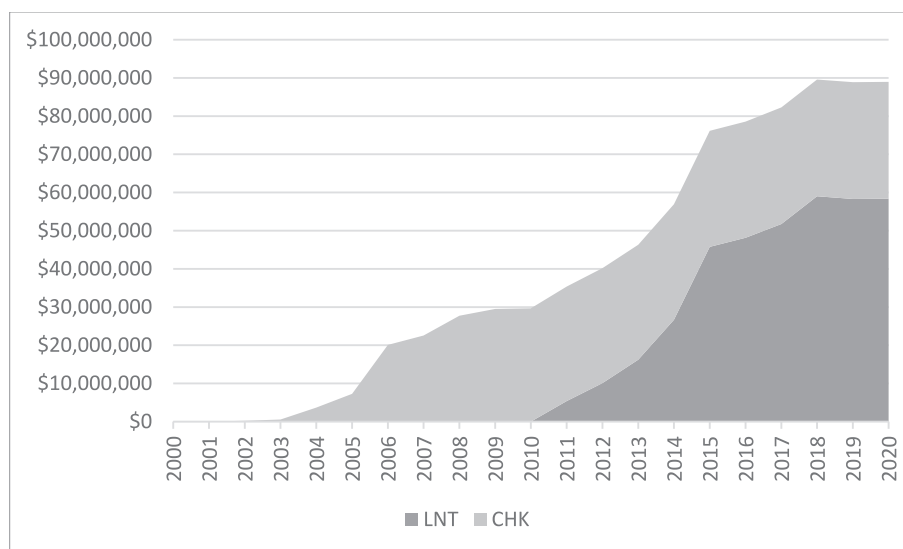


Fig. 3. Annual revenue totals under a combined LNT and CHK scenario.

taxation for Laos's rubber sector alone could have altered the politics and practices of concession-related land compensation significantly. If both concession fee-based and royalty-based taxation were "stacked" on top of one another and aggregated across projects, even as taxation would not have been a root-cause solution to the problem of land grabbing, it might nonetheless have improved the lives significantly of those who were caught up in concession-making.

Whether concession taxation can be increased – and if so, by how much, on what terms, and retroactively or not – remain importantly open questions. The history of the global oil industry shows that while concession royalties are determined by unequal power relations (typically favoring investors), these relations shift in favor of host countries once production begins (Yergin, 1990). Whether a similar principle applies to concessions developed in the wake of the recent land rush remains to be seen. But given their widespread failures to deliver on promised jobs and infrastructure, and now that investors' capital has been at least partly locked into in concession landscapes (in the form of rubber trees, terraced fields, on-site harvesting and processing facilities, etc.), concessionaires are vulnerable to taxation demands in ways they were not previously. This is all the more so given the extensive information infrastructure that, despite its ongoing imperfections, has been erected in Laos and elsewhere to inventory national concession landscapes in the years since concessions were issued (Hett et al., 2020; Webb et al., 2017). Uncollected taxes can still be assessed and collected. Taxation still offers an essential form of social redistribution, as tax laws and national Constitutions across the global South remind us.

The risk, in our view, is that even if enhanced spatio-technical capacity is put to use, the social redistribution involved may not be progressive. The indeterminacy of the techno-politics surrounding land-concession taxation is multi-dimensional, including debates about quality and access to spatial data itself, the varied legal understandings of taxation manifested by state officials (especially those closer to the field), and legitimate debates about how to set tax rates. But most important, in our view, is the scalar debate over what to do with tax revenues if and when they are collected. Laos is on the brink of collecting more tax dollars from its substantial area of productive land concessions. Yet as evidenced by debate among the country's National Assembly, much of the interest in heightened taxation is not out of a desire to remedy the land dispossession that facilitated the plantations in the first place, but to offset the increasingly desperate state of the country's financial affairs. This is the cautionary tale at the heart of this paper: If concession taxes are not redistributed downward to address concession-created land problems, enhanced techno-political capacity risks

repeating the same problem of prioritizing investors over rural communities, only at a larger scale.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The authors do not have permission to share data.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.worlddev.2023.106359>.

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