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Indigenous collective land titling and the creation of leftovers: Insights from Paraguay and Cambodia

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Abstract

Collective land titling often drags on for decades, while private land concessions and holdings do not face the same problem, creating ‘leftovers’ of land available for Indigenous peoples to attempt to collectively title. In two ethnographic case studies in Cambodia and Paraguay, we analyse community-based Indigenous land titling by focusing on the on-the-ground dynamics of property relations, Indigenous livelihood shifts and ecological change. In both countries, large agricultural players implemented a staggering change in local landscapes through deforestation, configuring new realities that in turn feed into local environments and titling processes. Adapting their livelihoods to living in the leftovers, in Cambodia, the Indigenous Bunong shifted from rice to rubber as they navigated the slow titling process. In Paraguay, some Indigenous Guarani shifted from corn to cattle by renting out their collectively titled land. The case studies show that the liberal titling approach to secure Indigenous lands overestimates the ability of title to remove land from capitalist logics such as the push to rent or sell, while some spaces of autonomy are opened. We critique the liberal approaches to formalising title, where Indigenous struggles for their ways of life are funnelled into fighting for collective property.

KEYWORDS

agrarian change, Cambodia, collective land titling, deforestation, forest-based livelihoods, Indigenous, Paraguay

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1 | INTRODUCTION

The practice of granting legal titles to communally held territories emerged as one response to the organising efforts of Indigenous peoples worldwide who were facing the triple threat of losing their land, their autonomy and their way of life. Indigenous ways of life often imply specific relationships of care and responsibility between territory, plants and animals (Crate, 2008; UNDRIP, 2007; Whyte, 2018), and with territorial fragmentation and deforestation, these relationships are threatened. Therefore, the premise of communal or collective land title¹ appears to be simple: Through title, Indigenous peoples have autonomy over their land and livelihoods and can hold off dispossession. At the same time, environmental organisations advocate for Indigenous titling on the supposition that once land is secured, Indigenous peoples will protect their forested land.² For Indigenous communities, collective land titles appear to promise a remedy to threats to their livelihoods and autonomy, where they hope to determine the direction and pace of change themselves. Following this promise, some Indigenous communities in forested areas began turning to collective land titling as a way to prevent the deforestation and forest conversion that was already impacting their forest-based livelihoods.

This article compares two case studies of Indigenous land titling in Paraguay and Cambodia, where the histories of collective land titling began at different times and with varying degrees of success. Contrasting the two countries provides an opportunity to look at the relationship between collective Indigenous land titling and agrarian change—specifically the shifts in livelihoods and property relations at different stages of collective land titling and in different contexts of large-scale land use change, such as rubber concessions in Cambodia and private cattle ranches in Paraguay. Despite these differences, we will show that Indigenous communities in both cases are confronted with territorial loss and fragmentation, leaving them to live on what we call the ‘leftovers’, as large-scale land use change crosses community boundaries. Despite the promises of autonomy through collective land titling, living within the leftovers means their livelihood choices are constrained, and the possibility to shield communities from the land market and other capitalist dynamics becomes impossible.

Collective Indigenous land titles were first formalised in Latin America in the late 1980s and 1990s.³ Some Southeast Asian countries followed suit in the late 1990s and early 2000s⁴ when national and regional Indigenous movements formed and claimed their collective rights to land.⁵ Thus, the experiences of Indigenous peoples such as the Guarani in Paraguay and the Bunong in Cambodia reflect the global history of collective titling, from attempts at implementation to achieving some collective land titles. Twenty years separate the implementation of first Paraguay's and then Cambodia's Indigenous titling frameworks. Collective titles in Paraguay were legally established in 1981 and titling has continued unevenly from then on, whereas the majority of Indigenous peoples in Cambodia are still in the titling process, which started nationwide in 2009, with few collective land titles achieved. While national tenure laws and legal codes have been implemented in both countries, what remains unclear is their impact on Indigenous autonomy to make decisions about their lands and livelihoods, in particular with regard to forest-based livelihoods.

¹We use the terms Indigenous communal and collective land titling interchangeably, as both indicate the legal framework that grants land title to a collective group, usually a village or community with legal personality in the case of Cambodia and Paraguay. We note, however, that the term ‘Indigenous communal title’ is more commonly used in Cambodia and ‘Indigenous collective land title’ in Paraguay.

²Yet on the often strained relationship between Indigenous peoples and conservationist organisations, see Tauli-Corpus et al. (2020) who point out that Indigenous peoples are increasingly cornered by Protected Areas.

³The ILO-Convention 169 was established in 1989 and ratified by the majority of South American countries, where Articles 13–19 focused on Indigenous and tribal rights to land, including the ‘collective aspects’ of Indigenous-land relationships (C169, 1989). The World Bank and the Inter-American Development Bank supported various collective titling schemes in the 1990s in Latin America.

⁴Compared with Latin America, the international concept of ‘Indigenous peoples’ developed relatively late and limited political and legal impact in (Southeast) Asia (see Erni, 2008; Kingsbury, 1998). Many Asian governments disputed the relevance of the concept in the Asian context, arguing that Indigenous peoples exist only in other parts of the world where, due to European settler colonialism, the original inhabitants are a small minority of the population. Cambodia did not recognise Indigenous peoples until 2001, with the adoption of a new donor-backed Land Law, after intense negotiations between the government, international financial institutions and civil society organisations (Baird, 2011). For a detailed review of Southeast Asian States’ legislations to grant Indigenous peoples’ rights to collective land, see Errico (2017).

⁵It is remarkable that, despite its popularity, there are little aggregate data available on how many Indigenous collective land titles exist in Southeast Asia, Latin America and the world at large.

Reviews of the process and impacts of collective land titling in Paraguay and Cambodia highlight that titling is painstakingly slow, leaving Indigenous groups vulnerable or even literally on the side of the road (Baird, 2013; CCHR, 2016; Correia, 2018; Simbolon, 2009). The respective governments' lack of political will has been identified as the underlying barrier to implementation (Correia, 2019; Milne, 2013). Titling efforts in both countries, including non-Indigenous titling, have been shown to avoid areas desired by large-scale agriculture, by other development projects and by well-connected companies and individuals (Dwyer, 2015; Folch, 2019; Schoenberger, 2017). Thus, through the community-based Indigenous titling model (Andersen, 2011) in both countries, there is fragmentation or 'reductions' of Indigenous lands where collective land titling has occurred (Milne, 2013; Tusing, 2023). Yet the relationship between Indigenous collective land titling and Indigenous livelihood shifts in both countries requires more attention, as our comparison will show that leftovers are made both through the titling process in Cambodia and after title has been successfully obtained in Paraguay.

Building on these findings, in this article, we analyse community-based Indigenous land titling, by focusing on the on-the-ground dynamics of Indigenous livelihood shifts. In both countries, large agricultural players implemented a staggering change in local landscapes through deforestation; we look at Cambodia through the expansion of rubber tree plantations and Paraguay through the expansion of cattle ranches through ethnographic case studies. We show how state-implemented collective titling fragments Indigenous lands both during titling and after, leading to what we call 'the leftovers' in both countries, and how the Bunong and Guarani cope once their land is fragmented. Both the Bunong and the Guarani have adapted their livelihoods to the dynamics of living in the leftovers, trying out different ways to sustain themselves in the context of deforestation—changing from rice to rubber and from corn to cattle, respectively. In this way, we analyse their lived experiences of ongoing struggles to maintain control over their lands and livelihoods, struggles that were originally intended to be resolved through collective land titling. With this focus on agrarian change, we untangle the complex processes and outcomes of Indigenous collective land titling to explore why its seemingly straightforward promises have not been met over the past three decades. We critique the liberal community-based titling approach, where Indigenous struggles for land and their ways of life are funnelled into a fight for collective property. In applying this liberal approach, state titling policies deliberately create leftovers and do not account for the transboundary capitalist logics that impact Indigenous livelihoods in the leftovers.

This article is structured as follows: First, we review literature that examines the promises and problems of collective land title, focusing on (1) Indigenous autonomy over land and livelihoods and (2) territorial fragmentation, in order to introduce the concept of 'leftovers'. We then explain our comparative methods. Drawing on secondary sources, we construct a comparative political economy of land titling in Paraguay and Cambodia to then give context to how the leftovers are created. Through the ethnographic cases of 'rice to rubber' in Cambodia and 'corn to cattle' in Paraguay, we detail the complex, on-the-ground dynamics of livelihood change and continuity in the context of titling. We conclude with reflections on the complex role of collective land titling in relation to property and livelihood changes for Indigenous communities.

2 | COLLECTIVE LAND TITLING AND THE LEFTOVERS

2.1 | Collective land titling: Promises and problems

In parts of Latin America in the 1960–1970s, Indigenous communities faced *campesino* colonisation and other development projects within their land, in the context of agrarian reforms.⁶ Indigenous groups began to organise themselves, seeking to stop these large- and small-scale interventions, and some *indigenistas* and anthropologists began to

⁶In Paraguay, the Agrarian Statutes were used strategically to secure Indigenous land against the threat of dispossession through *campesino* colonisation, by re-classifying the Guarani as 'colonos' on their own land, bringing them together in order to apply for a title as Colonias Indigenas (see Grünberg, 1988; Tusing, 2023). We address the later Indigenous Land Law 904/81 in this paper.

support Indigenous land rights.⁷ As Chirif (2006, pp. 12–15) notes, 1960–1970s organising was based on advocacy for land and Indigenous initiatives.⁸ As a response to this pressure, a number of states in Latin America implemented collective land titling laws. The idealised narrative of collective land titling then promised to safeguard Indigenous self-determination and preservation of forested lands and forest-based livelihoods by granting legal title to Indigenous groups. This view is still prominent in the development sector, conservation activism and some scholarship. In the case of Southeast Asia, formalising land tenure has also been seen as a solution to safeguard swidden livelihoods that rely on forested land: ‘Shifting cultivation and shifting cultivators can only survive increasing competition for land, forests and natural resources if ways are found in which traditional land-tenure systems of shifting cultivation can be incorporated into national laws and legal codes’ (Weinstock, 2017, p. 95).

However, there are a range of problems with collective land titling and its related processes. In literature on Latin America, where collective tenure systems are older, Stocks (2005) points out discrepancies between policy-on-paper and real advances, arguing that ‘it takes more than paragraphs in a document to change 500 years of colonial and postcolonial practice, especially when the practice involves something as essential as land’ (p. 86). As Indigenous movements claimed political and material space in Latin America, counterclaims to their lands and resources multiplied. The contestation of Indigenous land titling has made it difficult to control even titled lands; it is possible for communities to lose effective possession and be evicted from their land, even when they have a government land title (Kerekes & Williamson, 2010; Tusing, 2023).

Advocacy for collective titles for Indigenous groups of the 1980s and 1990s directly linked collective tenure, indigeneity and the preservation of Indigenous livelihoods with the protection of forests in both Latin America and Southeast Asia (Chirif, 2006; Li, 2010). This advocacy explicitly linked Indigenous land use to environmental activism, where Indigenous peoples were centred as custodians or guardians of the forest (Ulloa, 2005) but also conceived of as the original owners (Nichols, 2018). This role was formalised by linking their right to Indigenous lands and forest resources to so-called traditional uses and prior possession. However, associating the rights of Indigenous peoples with the manner in which they earn their livelihood bears the risk that other practices would undermine their rights (Anthias & Radcliffe, 2015; Cattelino, 2010). For example, in Cambodia, the 2001 Land Law emphasises the practice of a *traditional* lifestyle and *traditional* agriculture in the definition of Indigenous communities and lands (Articles 23 and 25a, italics added). In this context, Cambodian authorities can decide on the Indigenous status based on land use, and the Bunong may lose their collective land claim if they no longer carry out swidden agriculture and become rubber farmers. In contrast, in Paraguay, as with other parts of Latin America, land claims can be based on carrying out improvements to the land, so Indigenous claims may not be undermined if they decide to carry out monocropping, yet then they no longer align with environmental advocacy groups’ goals and may lose logistical support.

Moreover, liberal approaches to Indigenous titling aim to protect lands and livelihoods by insisting on tenure that is collective and inalienable. But this underestimated the mechanisms through which dispossession occurs in the world beyond, but also within, communities and disregards intruding land markets where Indigenous peoples are pushed to sell or rent land to make ends meet, or opt to try out producing for the market (Li, 2010). Additionally, the state retains the authority to grant collective land titles, making groups responsible for coming forward as ‘claimants’ and land owners, where the state sets the rules of recognition (Coulthard, 2014). Thereby, Indigenous territorial claims are arbitrated through legal frameworks of property and rights. Land and livelihoods must be continually made commensurate with state regulations and institutions, narrowing the way these relationships are defined and creating a moving target for communities (Hale & Millaman, 2018; Hall et al., 2011).

A number of problems related to land formalisation and titling schemes more generally should also be considered in light of Indigenous collective land title. Land titling may not only formalise existing land rights but also frequently

⁷See the Declaration of Barbados I and II in the 1970s, where Indigenous activists and anthropologists met to denounce the lack of support for Indigenous land movements by *indigenistas* and missionaries, calling for an activist anthropology that supports Indigenous initiatives (Chirif, 2021).

⁸In Paraguay, the terms territory, autonomy and self-determination appeared *after* the 1981 Indigenous Land Law in a continuation of these movements, as noted by Prieto (1987).

creates new property regimes and undermines older claims (Hall et al., 2011). Intensification of land loss and accumulation may occur in the name of improved land titling schemes (De Schutter, 2011), and historical land grabs obtained by dubious and/or violent means may be legitimised (Campbell, 2015; Hall et al., 2011). Land formalisation can predominantly favour those with the access to capital and ability to purchase or rent land, and not necessarily those most in need of land for their livelihoods (Hall et al., 2011). All these issues signal problems with codifying land tenure as property rights.

2.2 | From fragmentation of Indigenous territory to the leftovers

States have designed collective land titling in various ways: In both Paraguay and Cambodia, the titling model follows what Andersen (2011) calls the permanent title model, where ‘the state fully and permanently hands the land over to local Indigenous communities for private collective ownership’ (p. 1). In this model, rather than titling a large, unbroken territorial claim as in the Philippines or Nicaragua, Indigenous land titling in Cambodia and Paraguay restricts Indigenous title to *community areas only*, thereby reducing the amount of land available to be claimed. All other land is ‘freed’ from Indigenous claims and then made available to others for a variety of ends—privatised, given as a concession, or made into conservation land, for example. These community-based titles are, at the same time, contested, and while Indigenous title is pending, some contested lands are privatised or given in concession to other actors. Therefore, in the process of land formalisation, Indigenous territory becomes fragmented into ever-smaller areas.

Land titling processes have been shown to result in territorial fragmentation in different parts of the world (Diepart & Sem, 2018; Korosy, 2008; Plant & Hvalkof, 2001). Indigenous lands that were titled with the community-based or permanent title model ended up considerably reduced and fragmented (Baird, 2013; Milne, 2013; Neef et al., 2013; Tusing, 2023). While this fragmentation has been acknowledged in scholarship on Indigenous collective land titling, we emphasise that there are multiple processes at play, such as land grabbing, effective control and accumulation by dispossession (Borras & Franco, 2012; Harvey, 2004). As we will show in the article, this means that land is not only fragmented; it is concentrated and divvied up in specific ways, and Indigenous land continues to be affected by capitalist logics despite its legal designation as inalienable. For example, large-scale economic concessions by the state grant prime lands to private companies, or land grabbed by elites is quickly formalised, while Indigenous title drags out due to various bureaucratic and discriminatory practices (see Tusing & Leemann, 2023). Indigenous peoples may be steered away from contesting concessions, from claiming collective title, like in Cambodia with a private titling programme,⁹ or pushed towards renting out their land, as in Paraguay. Therefore, enclosure, dispossession, accumulation, bureaucracy and control all factor into the reduction of land available, feeding into fragmentation. Liberal land titling policies play a key role in reducing and dividing Indigenous territories. Thus, in the end, we propose that only ‘leftovers’ are available to be titled. In this paper, we specifically look at how liberal land titling efforts configure Indigenous leftovers and shed light on how people deal with living in them.

3 | METHODOLOGY AND DATA ANALYSIS

The comparative focus of this article came about through scholarly debates on collective land titling in different research sites.¹⁰ We carried out ethnographic fieldwork in our respective field sites on collective land titling

⁹In 2012, Prime Minister Hun Sen announced an initiative to distribute individual land titles, where state land already occupied by families is recognised and removed from concession zones, with reverse impacts on Indigenous peoples (Beban, 2021; Milne, 2013). In Bu Sra, few Indigenous households opted for private property rights, but the initiative diverted from and weakened collective property rights efforts for a time Tusing and Leemann (2023).

¹⁰A group of scholars working independently on collective land titling shared and commented on our respective case studies (see Acknowledgements) Leemann (2021) and Tusing (2023) benefitted from these discussions. The topic for the present article emerged from this comparative experience.

independently. Leemann has worked in Bunong villages in Mondulhiri, Cambodia, since 2010; the fieldwork spans a total of 4 months from 2010 to 2014, with follow-up research during 2016–2022. Tusing has carried out research in Mbya and Paĩ Tavyterā Guarani communities in northern Paraguay since 2013, with a longer period of 20 months of fieldwork from 2016 to 2018.

Data collection methods involved participant observation, semi-structured interviews and follow-up interviews with those identified as key actors. These included Indigenous leaders, private landholders, concession management and commodity chain stakeholders, government officials, NGO members and Indigenous cultivators. Individually, we consulted government land titling archives and documents provided by community leaders. In our respective field sites, we carried out participant observation in internal community meetings on land titling, as well as external meetings, where the community, non-government organisations and government authorities participated and formal decisions were made. The semi-structured interviews were designed to address emergent themes identified through participant observation with community and village leadership.

In order to develop the analysis presented in this article, we carried out a content analysis of the data collected and organised it into a shared, comparative chart. We analysed the ethnographic and historical political economic data across the following categories: (1) international and national collective land titling laws; (2) processes and bureaucracy of collective land title implementation; (3) local and extra-local actors or groups involved in collective land title (who is involved/excluded); (4) livelihoods and emerging economic relations linked to land titling; (5) dynamics of ethnicity, indigeneity and gender involved in collective land titling; (6) political relations within and across territories in question; and (7) relations of exclusion and violence. While not all these topics are covered in this article, we include them for transparency in order to show our comparative method. What emerged in dialogue between the two case studies was a contentious relationship between the purpose of collective land titling as proposed in these two countries and the actual process of land formalisation on the ground, in relation to Indigenous livelihoods and agrarian change. We illustrate these dynamics at two levels: through a comparative political economy and through the ethnographic case studies.

3.1 | Comparative political economy: Paraguay and Cambodia in context

The last decades have brought substantive deforestation and therefore changes to forest-based livelihoods both in Latin America and in Southeast Asia, leaving Indigenous-controlled lands as islands in places with once-dense forests. In Latin America, the driving force for forest loss is industrial monoculture, often facilitated by settlers and infrastructure projects (Hecht, 2014). While we highlight cattle ranching in the Paraguayan case study, soy also creates large expanses of mechanised, genetically modified (GM) farms, which in turn is also used for cattle feed in Latin America and abroad (Ezquerro-Cañete, 2016). In Southeast Asia, a combination of political, economic, social, demographic and biophysical factors have been driving the demise of swidden cultivation (Fox et al., 2009; Van Vliet et al., 2013), including the misreading of swiddeners tenure systems (Guérin, 2017; Tsing, 1993), allowing for the creation of ‘political forests’ (Peluso & Vandergeest, 2001). The push for agricultural intensification, namely, the expansion of large-scale industrial agriculture such as oil palm or rubber plantations and state bans on swidden agriculture, also compounds swidden demise (Cairns, 2017; Dove, 1983; Dressler et al., 2017; Thung, 2018). In Cambodia, internal migration of lowland Khmer followed the plantation concessions, adding further pressure on Indigenous forests and livelihoods (Mahanty, 2022).

In addition to massive deforestation that each country has faced (see Table 1),¹¹ Paraguay and Cambodia share a number of commonalities despite their locations in opposite hemispheres. Agriculture is a key economic sector in both countries, each relying on an agro-export model that requires extensive amounts of land. The governments of

¹¹The information in Table 1 is the most up-to-date possible, as there are various problems in each country regarding incomplete censuses in Paraguay and issues of transparency in Paraguay and Cambodia. We provide these statistics with this caveat, and note that we include many non-governmental sources to address this issue.

TABLE 1 Paraguay and Cambodia comparison.

	Paraguay	Cambodia
Deforestation (years, percentage)	1973–2017, over 60% forest lost	2000–2015, 24% of national forest cover lost
Area under industrial agriculture	17,685,620 ha of livestock 3,264,480 ha of soybean (MAG, 2008; Oxfam, 2015)	2,000,000 ha granted as ELC for large-scale plantations (Vrieze & Naren, 2012)
Role and percentage of agriculture in the economy	Paraguay is not fully industrialised (Ezquerro-Cañete, 2016). Its economy is largely based on agricultural exports: 4th ranked soy exporter and 10th in cattle (FAO, 2019). Agriculture makes up over 20% of GVA and 22% of the labour force (mechanised farming is increasing) (UNSD, 2014).	Cambodia's production structure is more balanced than Paraguay's; however, agriculture remains very important, accounting for over 25% of GDP, while employing almost half of the labour force (UNDP, 2018).
Indigenous population	117,150 Indigenous people, 1.8% population (DGEEC, 2012)	220,000–400,000 Indigenous people, 1%–3% of the population (IWGIA, 2021)
First Indigenous land titling law	1981: Law 904/81, under the Stroessner dictatorship	2001 Land Law
Titled Indigenous communities	3% of communities, nationally (Glaser & Villagra, 2020) Amambay and Concepción 493 communities, 134 landless, 182 renting their lands, 42 titled	36 (8%) of 458 villages (Chhuonvuoch, 2022)
Area of titled Indigenous land	963,953 ha (630,929 ha forested) (DGEEC, 2012). No updated census data available.	33,899 ha for 33 titled communities (ODC, 2021). No data available for 36 currently titled communities.

Abbreviation: ELC, economic land concession.

Paraguay and Cambodia have implemented laws making it possible for Indigenous collectives to apply for and be granted land titles. Finally, both countries' Indigenous collective titling policies focus on titling land in the form of Indigenous communities, rather than allowing for unbroken, extended Indigenous territories to be claimed, leaving only 'leftovers' available for titling.

3.2 | Paraguay

Prior to the 1940s, Paraguay boasted an extensive subtropical forest of some 9,000,000 ha, covering 55% of its Eastern region, largely coinciding with Guarani (Avá, Mbya and Pa Tavyterä) traditional territories (Lehner, 2005). From 1973 to 2000, the Paraguayan Atlantic Forest (also known as the Upper Parana Forest [BAAPA in Spanish]) in the Eastern region was decimated, with some 66% of forest lost (Da Ponte et al., 2017); merely 19,000 ha remained as of 2016. The vast majority of this deforestation was driven by large-scale landowners focusing on cattle ranching and soybean plantations (Huang et al., 2007; Larsen, 2017). In northeastern Paraguay, where the case study is located, cattle ranching dominates the landscape, with soy as a secondary factor, also used largely for cattle feed (Oxfam, 2016). These studies show that forest loss in the Eastern region has continued despite a zero deforestation law. The ecosystem changed from rotating agroforestry to large-scale monoculture, obliterating the forest as an entire region was taken up into the market dynamics. Fuelled by deforestation, Paraguay recently broke its own record for meat exports, outstripping neighbouring Argentina (Ferreira, 2021). The remaining forest cover is extensively fragmented into small islands (De la Sancha, 2014).

In this context of deforestation, Indigenous Guarani in Paraguay have faced challenges to their forest-based livelihoods. The Guarani are the largest group of Indigenous peoples in Paraguay, making up about 1% of the overall population; however, there are distinct subgroups: Mbya, Ava, Ache, Paĩ Tavyterã, Chiriguano and Guarani-Ñandeva (Melià & Telesca, 1997). As with many Indigenous peoples in Latin America, the Guarani carry out swidden, or slash-and-burn,¹² agriculture, consisting of clearing small areas for subsistence farming and allowing land to lie fallow and the forest to regrow. The Indigenous Guarani swidden technique is aptly summarised as rotating agroforestry (Reed, 1997), where gardens are cleared, burned and planted, then harvested as they are incorporated into the continuously regenerating forest. The Guarani rely on gardening within community spaces called ‘tekoha’, which are serial settlements in the forest of extended kin groups with an adequate water source, where they plant corn, manioc, beans, squash and sweet potatoes, and hunt and gather foods and medicine from the forest.

Corn in the forest gardens is a particularly important crop with both cultural and ecological relevance, for example, in the naming ceremonies that organise the Guarani religious year.¹³ Guarani cultivators plant runner beans that loop up and around the corn as it grows, and corn shades and shares nutrients with other crops in the garden. Then as the plots are left to fallow, the forest regrows around the communities. Eventually, the community might split or shift to another site within the greater forested area. Within communities, families may live where they have kin, as long as they gain permission, but tend to live within the same larger territory (or ‘tekoha guasu’). In addition to hunting and gathering medicinal and food plants, the Guarani traversed the forest by migrating through different settlements, caring for the forest along the way, with many sacred sites like cemeteries and the range of hills that forms the spine of the Amambay chain, crossing northern Paraguay into Brazil.

From the 1950s to 1970s, Indigenous communities in eastern Paraguay were organised as ‘Colonias Indígenas’ whose land was held by the state through the Agrarian Statutes. Due to international outcry on human rights abuses and accusations of genocide against the Ache Guarani in the late 1970s, the Stroessner dictatorship passed a specific law to legalise Indigenous land rights through community-held land to dispel further criticism. The Land Law 904/1981 drew upon existing Indigenous Guarani’s political leadership roles to set up the community to hold title through legal personality (Prieto, 1987), elected by the community to represent the community’s name in legal matters. They are ratified by the Ministry of Education and Culture, confirming their political leadership role, and they must request land title from the Paraguayan Indigenous Institute (INDI), which is the state agency tasked with collective land titling. INDI has a tiny budget, which makes it difficult to purchase private land for communities or to send out land surveyors to measure fiscal (state) land, which also involves requesting title from the National Institute for Land and Rural Development (INDERT, formerly IBR). Thus, the steps to title involve coordinating different state agencies and budgets, usually with NGOs facilitating steps that government officials should nominally carry out. According to the Paraguayan Constitution and Law 904/81, collectively titled Indigenous land cannot be rented out nor sold. Indigenous rights to land must be guaranteed in ‘sufficient quantity and quality in order to *conserve and develop their particular ways of life*’ (italics added, Article 64, PLC, 1992). This effort to ‘conserve’ their particular ways of life intends to remove land from the market by granting collective titles in perpetuity, and Article 64 also expressly prohibits renting out

¹²The terms slash-and-burn or roza y quema in Latin America (Fujisaka et al., 1996), swidden (Mertz et al., 2009) and shifting cultivation (Nye & Greenland, 1960) are often used interchangeably, although they outline different aspects of the system (for a comprehensive discussion of the terms, see Pollini, 2014). Swidden is the closest synonym to slash-and-burn and is usually preferred to this term, because it does not highlight the acts of ‘slashing’ and ‘burning’, which would be conducive to negative prejudices (Pollini, 2014). Swidden cultivation is defined by Mertz et al. (2009, p. 261) as ‘a land use system that employs a natural or improved fallow phase which is longer than the cultivation phase of annual crops, sufficiently long to be dominated by woody vegetation, and cleared by means of fire’. We find this definition very useful and want to highlight that it reflects an emphasis on the relatively short period when annual crops are grown. We stress the forest farming aspects of this agroforestry system, as the fallow period is frequently cultivated as well, although with perennial species rather than annuals.

¹³In these ceremonies, the new green corn is named, then young men are named, and women organise their celebration ceremony. The various ceremonies go by names such as *avati kyty*, *mita ery*, *mita pepy* and *kuña farra*, among others.

Indigenous land.¹⁴ However, in practice, some 37% of all Indigenous titled lands in Paraguay are rented out (Bogado et al., 2016), the motives for which are the subject of the case study.

In 1977, Indigenous traditional territories were estimated to cover some three quarters of national territory (Lehner, 2005). Glauser and Villagra (2020) carefully considered available numbers and their own observations to conclude that only 3% of Indigenous land is titled, with communities constituting small, fragmented islands. Thus, while many communities have gone through the titling process, few are successful in titling their traditional territories. Communities in northern Paraguay are relatively successful at around 5.3%, which is to say still facing major concerns. In order to constitute legal communities, people were moved to new areas, different communities combined and expected to live with over lineages, and many had to start their gardens anew when they moved. According to the latest census data, 42 Guaraní communities are fully titled and have their own land in Amambay and Concepción, in the regions of northern Paraguay under study (DGEEC, 2012; own calculations). However, my own research from Guaraní communities' paperwork and NGO documentation shows that several of these communities named as titled in the census do *not*, in fact, have full title in their name or do not have their own land. Paĩ Tavyterã leaders recently denounced to the Senate that the Paraguayan Indigenous Institute still holds title to the community Yvypyte at the centre of their sacred lands, yet the community is documented as fully titled in the census (DGEEC, 2012). In order for this to be true, the title should be re-issued in the name of the community's legal personality. Overall, collective title law concentrated Indigenous land titling on communities instead of entire territories, fragmenting Guaraní territory in irregular ways, and opening it to large-scale agro-industry and massive forest loss. As mentioned, communities must then navigate how to live in the leftovers, and many turn to renting.

3.3 | Cambodia

In Cambodia, economic land concessions (ELCs) have been awarded to major players since the French colonial period, when large rubber plantations were granted to concessionaires (Neef et al., 2013). After independence in 1953, no new concessions were granted to foreign investors; however, French companies continued to operate their existing rubber plantations. Due to the war-torn period of the 1970s and 1980s, rubber plantations' production declined by half (Slocumb, 2010). When post-conflict Cambodia transitioned from a centrally planned economy to a market economy in the early 1990s, the policy of granting concessions underwent a renaissance in the form of forestry concessions (Cock, 2016; Neef et al., 2013). While there was deforestation during the 1990s (Le Billon, 2000), Cambodia remained a predominantly forested country until 2000, with a forest cover of 54% of the total land area. Then from 2001 to 2015, Cambodia lost 24% of national forest cover. An estimated 23% of this tropical forest loss was due to clearance and replacement by rubber trees, and 8% was converted mostly to oil palm and acacia (Grogan et al., 2019). In 2005, land concessions boomed with the enactment of Sub-Decree 146 on Economic Land Concessions and in 2011, ELCs covered enormous 2 million hectares—equivalent to 53% of Cambodia's arable land—affecting more than half a million Cambodians (Vrieze & Naren, 2012). We see this national pattern in Monduliri province, the case study area, where between 1999 and 2019, land cover change occurred on 303,464 ha (representing 21% of the total area of the province) and deforestation for agriculture accounted for 62% of all cover changes. Plantation-based agriculture represents the main driver of deforestation in Monduliri province: 94,731 ha were granted as concessions for rubber plantations¹⁵ and almost one fifth of these were granted in the case study location of Bu Sra, making it one of the four provincial hotspots of this land use transformation (FIDH, 2011; PCLMUP of Mondul Kiri province, 2021; own calculations).

¹⁴Los pueblos indígenas tienen derecho a la propiedad comunitaria de la tierra, en extensión y calidad suficientes para la conservación y el desarrollo de sus formas peculiares de vida. El Estado les proveerá gratuitamente de estas tierras, las cuales serán inembargables, indivisibles, intransferibles, imprescriptibles, no susceptibles de garantizar obligaciones contractuales ni de ser arrendadas; asimismo, estarán exentas de tributo. Se prohíbe la remoción o traslado de su hábitat sin el expreso consentimiento de los mismos' (bold added, PLC, 1992).

¹⁵Since 2011, there is a moratorium on new concessions, but the previously granted ELCs in this case study are not impacted by the moratorium.

As in other countries of mainland Southeast Asia, the 'rubber boom' reached previously remote parts of Cambodia in the 2000s, affecting mainly Indigenous peoples. Indigenous peoples in Cambodia account for a total of 1%–2% of the national population, and the Bunong are one of the largest of the 24 recognised Indigenous groups (AIPP, 2015). They based their livelihoods on extensive land and forest resources, as did 14–34 millions of other swidden cultivators in Southeast Asia at the end of the 20th century (Mertz et al., 2009; Padoch et al., 2007). Central to the Bunong social organisation, female descent groups (/mpôôl/)¹⁶ are decisive for customary land rights; thus, the right to access village land and forest passes from mothers to their daughters (Leemann, 2021). When there was still abundant forest available, the Bunong practised rotational agriculture on village territory with a variety of crops: Families cultivated upland rice, corn, a broad range of vegetables and fruits, and tobacco in swidden fields (mirr) and then fallowed the fields for up to 15 years. Among the swidden crops, rice was particularly important; each Bunong family would plant a range of varieties of the 'mother rice' and in addition on average three early rice varieties in a swidden field.¹⁷ Numerous ceremonies to the rice spirits were performed throughout the agricultural year. Little or no labour was invested in fallowed land, but the family that farmed the plot during the cultivation period claimed principal rights to collect bananas, pineapples and other fruits, vegetables, tobacco and long grass for roofing, as well as medicinal plants until they became less abundant. Forests offered rich sites for gathering resources, hunting, fishing and grazing animals. Many areas of the forest are known to be inhabited by spirits, and the use of these areas is subject to a complex system of restrictions and rules.

The 2001 Land Law and the Sub-Decree 82/2009 permit the registration of Indigenous communities as legal entities who can collectively own land. The titled land cannot be sold or rented to outsiders. While the 2001 Land Law highlights the practice of a traditional lifestyle and traditional agriculture, the Sub-Decree of 2009 disregards the importance of fallow land and forests in general for Indigenous ways of life and livelihoods by almost entirely focusing on the protection of agricultural land in use. Instead of whole forests or territories, only fragments of Indigenous lands are intended to be titled.

The entire titling process is structured in three independent but sequential steps and involves three different ministries at the national and provincial levels. Various international donors have spent millions over the years to facilitate communal titling processes in Cambodia. Insiders estimate that costs between \$10,000 and \$20,000 per community alone arise for the first step to supposedly cover transportation, accommodation and per diem of the Ministry of Rural Development and other costs associated with the process (CCHR, 2016). The Cambodian state's official estimate is that there are 458¹⁸ Indigenous communities; out of these, the vast majority (66%) have never entered the land titling process. Thirty-four per cent (155 communities) have completed the first stage and received recognition of community's indigeneity. Thirty-three per cent (152 communities) also mastered the second step and are registered as legal entities with the Ministry of Interior. The last stage, however, is the one that is the most expensive and requires the most external expertise. Only 8% (36 Indigenous communities, none in Bu Sra commune) completed the last stage of the titling process and actually received a collective land title (Chhuonvuoch, 2022; ODC, 2021). Moreover, the 8% who achieved title received only fragmented territories (Milne, 2013). The Indigenous communities that are stuck in the last stage of the titling process arguably (1) did not receive enough external support to overcome all the hurdles to finally title their land, namely, to complete the mapping process and resolve all remaining land conflicts, or (2) refused the terms under which they could map territories and resolve land conflicts (Leemann, 2021). They remain without interim protection of their lands.

¹⁶Several transcriptions have been developed for Bunong language: Georges Condominas (1977 [1957]) writes /mpôol/ (gar dialect) for descent groups, while Catherine Scheer (2014) writes /mpôôl/ (Buneurr dialect). We adopt Scheer's transcription here.

¹⁷See Condominas's (1977 [1957]) seminal ethnography on swidden agriculture and related rituals for the late 1940s. On recent agricultural, social and spiritual aspects of Bunong swidden systems in the region see Leemann and Nikles (2017). Mother rice, the principal kinds of rice of which the Bunong maintained more than 20 varieties, would take 6 months to harvest. The early rice varieties were usually planted in the corners, taking up no more than a third of the swidden field and could be harvested after 4 months. The various rice ceremonies were important social events where news about the family, agriculture and other important aspects of life were exchanged between relatives, friends and neighbours (Leemann & Nikles, 2017; Scheer, 2017).

¹⁸The number of 458 is an official estimate on Indigenous communities in Cambodia from 2009 by the Department of Local Administration of the Ministry of Interior. Other estimates are higher (CCHR, 2016).

When comparing the Guarani and Bunong experiences with collective land titling and agrarian change, some particularities should be considered. The first is the 20-year difference between legislation and the larger number of communities titled in Paraguay, compared with the tiny number of communities titled in Cambodia. How land was fragmented and parsed up has some distinct features, as collective land titling in Paraguay was first implemented during the Stroessner dictatorship, in which most of the country's land was declared state land and then funnelled to party and military elites through irregular land deals, and sold off again beginning in the 1960s. In Cambodia, the state declared political forests and then reallocated forested land as concessions to companies, with a recent thrust in the 2000s. Thus, the logic of land redistributions is historically situated.

4 | LIVING IN THE LEFTOVERS OF COLLECTIVE LAND TITLING

The Indigenous collective land tenure laws in both countries are designed as a fragmentary property regime, where Indigenous communities may title 'islands' of land in the 'sea' of competing privatisation and concessions. Notess et al. (2018) document that the average time to Indigenous land titling takes decades, and this process is often uneven with starts and stops, advances and reversals, and gains and losses (see also Tusing and Leemann, 2023). In fact, land formalisation in Paraguay is so slow as to merit its own metaphor in Guarani: 'The road is long (*Ipuku la tape*).' This phrase, repeated by government officials, NGO workers and Indigenous political and spiritual leaders in meetings on collective titling claims, signals the lengthy bureaucratic trudge that claims take as they wind their way back and forth between people, surveys and government agencies. The phrase is a call for patience and persistence but also invokes the Guarani concept of walking (*roguata*), the movement along a path with a spiritual dimension of seeking out the right way to live in the appropriate space to do so (Tusing, 2023). Guarani leaders try to maintain flagging commitments to titling by pointing out that other communities were successful, and political leaders from different communities share their strategies used to hold on to land. In Cambodia, however, a more apt metaphor is one of a bureaucratic treadmill. Indigenous claimants are kept on the treadmill of titling while Indigenous land is freed de facto from Indigenous claims, and contested land is available for development and concessions. Thus, forest conversion occurred on Indigenous lands while collective titles were processed, dragged out and fragmented.

Whereas collective land titling may take decades, land concessions and private land titles are comparatively expedited. This often signals a period when the fight for land becomes urgent, as land is grabbed by private and/or state-facilitated sectors and people begin to visualise 'land's end' (Li, 2014). In this context, NGOs and other international agencies attempt to alert Indigenous communities of the narrow window open to claim title. Within Paraguay, such a period began in the late 1960s and continues today, as communities found their territory opened to campesino colonisation and elite land holders began to intensify production. Concurrently, some Indigenous communities found out their land was already privatised by wealthy ranchers and farmers who formalised their land title through their status as elites, unbeknownst to the Guarani communities who already lived there. In Cambodia, the fight for land became urgent in the 2000s when the Cambodian Government put a renewed emphasis on the promotion of agro-industrial plantations via ELCs.

In the following two ethnographic case studies, we take a closer look into how this process of large-scale land use change and forest loss directly impacts Indigenous communities in Cambodia and Paraguay, as communities navigate collective land titling and livelihoods in the leftovers, as experienced by the community members themselves. We begin with the Bunong case in Cambodia to show how they try to hold on to land and make a living on the leftovers both inside and outside of rubber concession lands during the drawn-out process of obtaining collective land title. Then we turn to Paraguay where some Guarani communities hold collective land titles but undergo pressure from wealthy cattle ranchers to informally rent out their land, confining them to the leftovers not occupied by cattle.

4.1 | From rice to rubber: Concessions and livelihood change in Bunong communities

To look for land today is not easy, as everywhere, the land is already claimed by someone. Even if you go to the forest, the government says it is our land, it is a protected forest. When you go to another Bunong village they say it is our land. And when you go to another family [from the same descent group] they say this is our land. So nowadays, to look for land is almost impossible (...). Maybe you can ask people if they want to share it or if you buy the land from them, then maybe you can get some. But just to go and find land is not possible anymore.

(Bunong man, 28 years, 2011)

Indigenous land became scarce in Bu Sra commune at a rapid pace. While there had been rumours since 2006 that companies would move in and take Bunong land, villagers from Bu Sra could not imagine the sheer amount of land and size of the plantations to come. In 2008, several large-scale rubber plantation companies became operational within the assigned concession areas, totalling to enormous 17,000 ha.¹⁹ Deforestation to make way for the rubber advanced steadily. The immediate impact of the plantations for the Bunong was uneven at first: While many families lost their swidden fields within the first few months, others were not affected by the advancing bulldozers until several years later. But all Bunong often expressed grief and an initial disorientation for the massive clearing of forest and later the rows and rows of rubber trees on the plantation. Bunong communities collectively stood up to protect important spirit forests and graveyards, involving demonstrations in 2008, where company tractors were burnt down, and cursing rituals in 2009. In this context of land struggle, new informal leadership emerged around the questions of appropriate strategies to secure land and livelihoods. Even younger Bunong could become informal leaders if they convinced others to follow their advice. The companies only stopped clearing some areas because of the many protests on the ground. Today, these areas stand out like islands in a sea of rubber trees.

Bunong villagers entered the collective Indigenous titling process in 2009, made possible by the Sub-Decree on implementation of land titling that same year. In order to speed up the collective titling process, various organisations²⁰ advised the Bunong not to contest the concessions, as collective title can only be granted to land without disputes. Therefore, they supported the strategy to pursue collective land titles for the 850 Indigenous families on the remaining land left over from the concession, believing that it was fruitless to contest the concession. Once underway, the various stakeholders involved had fundamentally different notions of how communities and Indigenous territories should look, and it soon became clear that the process of boundary-making was highly political (Leemann, 2021).

Nevertheless, villagers formed a total of seven Indigenous communities and received formal recognition by the Ministry of Rural Development in 2011. They advanced the second step of the titling process with relative ease and the Ministry of Interior registered them as legal entities in May 2012. Then the seven, newly formed communities applied for the next step: to register a communal land title with the Ministry of Land Management, Urban Planning and Construction (MLMUPC). They have been stuck ever since, and none have advanced to gain collective land title, despite their attempt to streamline the process by only seeking to title uncontested land. They were not granted interim protection of territories, whereas land allocation for concessions and conservation moved quickly.

Without interim protection or a land title, the Bunong in Bu Sra sought to hold on to remaining land outside of the concession area by switching from swidden to permanent agriculture. This transition to permanent agriculture was not only a way to adapt to the difficulty of carrying out swidden agriculture when land is scarce but also an important tactic to secure their land (Baird, 2008; Leemann & Nikles, 2017). Therefore, the families gradually shortened fallow periods and eventually worked all remaining fields permanently: 'We will no longer leave our land fallow.

¹⁹The European rubber company SOCFIN holds three concessions via two subsidiaries, which total 12,440 ha. In this way, the requirement that concessions may not exceed 10,000 ha is formally complied with. Vietnamese DAK LAK holds 4162 ha and Cambodian KPEACE 522 ha.

²⁰International Labour Organization (ILO), Office of the High Commissioner for Human Rights (OHCHR), Cambodian Human Rights and Development Association (ADHOC) and Community Legal Education Center (CLEC).

Because there is no more land available and we want to secure our fields. If we leave it fallow, someone else might take it and use it' (Bunong man, 54 years, 2011).

This livelihood shift occurred within a short time frame. When hill rice yields declined because they were no longer rotating their fields, farmers mostly switched to cassava. When they switched to cassava, it was because there was a good market price and it was readily available to plant. The cassava yields in permanent fields would decline without soil improvements, but farmers did not know what crop they would plant in this eventuality. As a member of the community land committee observed, '[People] stop growing rice when the land is no longer good for rice and then change to cash crops. But I do not know what people will do when the cash crops are no longer good' (Bunong man, 45 years, 2011).

Within concession land, the rubber companies²¹ offered Bunong families three compensation options as they began to consolidate the ELC: (1) cash compensation of US\$200 per hectare, (2) relocation land within the concession area or (3) the 'rubber family' scheme, where each hectare lost would be compensated with half a hectare planted with rubber. While contesting the very existence of the rubber plantation on Bunong territory with protests and legal complaints, out of the three options, many Bunong opted for cash compensation only, as the two other options were implemented very slowly, and they believed they could find land elsewhere. Yet outside the concession areas, land was also contested by a variety of competing claims, such as other Bunong customary land rights, settlers, smaller plantation companies, the logging industry and government conservation sanctuary schemes like the Phnom Nam Lyr Wildlife Sanctuary. Approximately 10% of the families ended up with no access to land within reach of their current settlement and had to move to previously used territories a few hours' walk away where they made new swidden fields. A minority followed a young leader's advice and did not accept any cash, while others took a mixed approach where they opted for cash for some lost fields and for the rubber family scheme as compensation for other lost fields. Even for those who still had land nearby, the changes were far-reaching as they owned significantly less land than before and their claims to it were still not formally protected in a context of marked land competition and fragmentation of Bunong claims.

Although the 'rubber family' scheme was perceived as a bad deal, a young leader advised the villagers to not accept any cash compensation either, so as to hold on to land as a livelihood base: 'People who still have land, of course, will not be rich. But at least, they can make something out of it. At the moment, the basic condition for their life is to have land. (...) Land provides them with steps to climb up' (Informal community leader, 2011). In this quote, the leader anticipated what would happen due to dispossession by rubber plantations: That land, which always had been available in plenty, would become scarce. As recommended by the young leader, some Bunong opted to receive 'family rubber' plots or relocation land within the concession, so as to hold on to as much land as possible. The allocated rubber plots would come along with a debt including the costs for clearing, planting and inputs. Families were obliged to sell the rubber harvest to the company to pay back their debt—the so-called rubber families would become contract farmers on what used to be their own land.

The plantation took 3–4 years to finally allocate plots to the 'rubber families', but when allotment finally occurred, they had to become rubber producers practically overnight. Community leaders indicated that 365 families planned to choose this option. But out of frustration and distrust over the slow allocation of rubber plots suitable for cultivation and disagreements over the terms of the contract, many turned their backs on the scheme and accepted cash compensation instead. This favoured the rubber concession, as the company did not have to give Bunong land within the concession. To incentivise families to give up rubber plots, plantations raised the cash compensation, and some families reportedly received as much as \$1500 per hectare, an amount considerably higher than the first offer of \$200. These differential payments were a source of anger and frustration between Bunong families.

For these 'rubber families', the transformation not only involved a crop with which they had no experience and which required techniques and inputs with which they were unfamiliar; it also meant that they had no food or income for 5 years from that plot. Bunong families suddenly had to negotiate with the rubber companies in a

²¹DAK LAK was first in offering two other options besides cash compensation, SOCFIN followed.

language other than their own—Khmer, Vietnamese or English—over key aspects of production, such as the quality of allocated plots, the terms of debt, repayment and sale of product. Yet it also meant that they held onto fragments of land within the concession.

Despite the uncertainty and challenges, the farmers decided with the courage of desperation to just go for it and become rubber planters:

Of course, all that is happening is not fair, it is not right. But now we try to live with these changes, we follow the changes of our situation, of our society. Now people are thinking about planting rubber, and people are starting to grow cash crops, so we try; we follow. Otherwise you miss the way (path), you stay on the side or you get left behind. So we tell ourselves, try it, don't be lazy and just try it, even if you have no idea about it. Because we never know what it's going to be like anyway. For example, we have no idea about the rubber, and what the price will be, we don't know, we just try it.

(Rubber family farmer, 30 years, 2011)

The rubber families watched seedlings die, but it was unclear who was responsible for the failure—was it bungling on the part of the plantation or carelessness and inexperience on the part of the Bunong rubber growers?—and who would then bear the cost of replanting? Because of all these problems, in 2021, only 132 families (36% of the initial number) are rubber families within the concession zone. The rubber families were from different villages and had farmland in different areas prior to the concession. With the rubber family option, they were given plots close to each other and had to face the challenge of growing rubber trees without expertise. Dealing with these challenges required considerable cooperation among the families. A young informal community leader started to facilitate this cross-village, labour-based cooperation among rubber families. Out of this early mobilisation, a Bunong grassroots organisation formed to address these problems.

In 2013, this Bunong grassroots organisation set up its own seedling programme of rubber and other perennials to avoid indebtedness and gain independence from the rubber companies. The organisation initiated an exchange with more experienced Bunong farmers from Vietnam, who had transitioned from swidden to permanent agriculture three decades earlier. The Vietnamese Bunong shared their knowledge concerning coffee and pepper cultivation and gave free seedlings to the Cambodian Bunong. With the exchange and technical support of the grassroot organisation, the rubber families soon began to rework the rubber monoculture into a diversified agroforestry system, planting their traditional hill rice and other annual crops below the rubber trees.

Likewise, the families who shifted from swidden to permanent cultivation of cash crops like cassava on their remaining fields outside the concession areas began to combine annual crops with perennials like rubber and fertilise the soil with organic compost. For example, on a hot, sunny day in 2014, I observed a group of young Bunong working side by side in an upland rice field in Bu Sra commune. They took care of the squash intercropped around tree trunks lying on the ground of the forest as they have always done in their swidden fields. Only that this field was going to be permanent. Next to the farmers rose the thin trunks of young rubber trees with light crowns. In a few years, the rubber will no longer allow enough light to reach the ground for rice or vegetables to grow. Then the farmers will plant shade coffee under them or keep small animals, and stop growing hill rice on these plots. This livelihood shift from rice to rubber on Bunong land started in 2009 and was strengthened and expanded with the seedling programme and technical support of the Bunong grassroots organisation. As of today, most of those who still have some land have diversified agroforestry systems, where they combine rubber trees with livestock underneath, or they cultivate the tree crops coffee, avocado and durian together with pepper, chilli and pineapple. Depending on the amount of land they still have, this system is successful enough to provide surpluses to be sold as cash crops and get by with a stable income (own data 2022).

Important aspects of the former farming system are retained albeit in a modified form; for example, rice ceremonies—now for wet rice on remaining small flat parcels near villages—are still celebrated (Leemann & Nikles,

2017). Although labour requirements in the Bunong fields changed dramatically with the transformation of cropping systems, farmers still adhere to collective labour arrangements:

The communal work has not changed. If you have land—it doesn't matter if you plant rice fields or cash crops—people still work in groups. The Bunong cannot let go of this. Maybe some parts are changing. For example if people want to have immediate help, they hire people to finish the field work quickly. But people still do communal work (...). If we work together we can share energy, help each other—the families usually do this.

(Bunong woman, 35 years, 2011)

The additional work force nowadays requires monetary repayments, and as most villagers cannot afford a large remuneration in cash, they no longer request a large labour force. The communal work groups used to encompass large family groups, even across neighbouring villages. Nowadays, the communal work groups can be formed between only three and five families from different villages and without kinship relations, who happen to work in close proximity to each other, like the rubber families whose fields were allocated by the rubber companies. Hence, mutual support, caring, cooperating with the workload and social cohesion are less extended (Scheer, 2017) but still shared.

In sum, instead of an unbroken territory, Bunong can hope to title only leftovers of other conflicting land projects. They stopped contesting concessions in order to facilitate their collective land titling claims. Yet Bunong collective titling on leftover lands outside the concessions drags on, and Bunong territories are fragmented. Many culturally significant places were not protected; Bunong communities lost sacred forests and even graveyards that were bulldozed like any other forested land by the plantations, leaving them with great despair. Arguably, fragments of Bunong land were preserved through the villagers' demonstration of land control through the switch to permanent agriculture on the leftovers. They also held on to small plots of land *within* the concession through the 'rubber family' scheme. In 2008, all Bunong families were swiddeners; in 2020, only 34 of 1079 families—a mere 3%—still had swidden fields (census data 2008 and 2020, own data). Hence, the Bunong in the leftovers find themselves with limited choices with regard to their land and livelihoods. They are quite successfully practising diversified permanent agroforestry systems, but non-traditional land use potentially puts the Bunong at risk of losing their status as Indigenous peoples and thus collective property rights to the remaining land. Thus, they face a double-bind—on the one hand, they are expected to be traditional, swidden farmers, but on the other, living on the leftovers renders swidden agriculture difficult to impossible to maintain.

4.2 | From corn to cattle: Titling, renting and livelihood change in Guarani communities

There are some 13 million head of cattle in Paraguay, nearly two cows to every person. How cattle ranching came to displace Guarani forest-based livelihoods is closely linked to Indigenous land titling, which titled small fragments of Indigenous land in northern Paraguay and opened the area to the large-scale cattle industry. In the particular case presented as follows, cattle ranching crossed property lines through an irregular rental contract:

We pulled up to the marshy lands next to the Ypane river, and my field assistant and I picked our way up the slope, the pace dictated by her cane. The few family members remaining in the Mbya Guarani community waited for us under a lonely shade tree. The community's leader had suddenly died the previous month. After drinking *tereré* (a cold yerba mate tea), he went to get his motorcycle and dropped dead, shocking the community. In the week after his death, the community quickly emptied out as people went to stay with other kin.

'Ndovy'aveima', they explained—those who left were no longer happy. The two young people now in charge of the community shuffled through papers that they had in various briefcases and bags, showing us the community land title and documents from a development program. Within the papers, we found a rental contract to a wealthy cattle rancher for 600 of the community's 650 hectares signed just two days before the leader's death. The contract stipulated that the leader, Silvio, was responsible monetarily for any cow that died, and that he would provide ample pasture for the cows. This in exchange for 3 million guaranies (then approx. US\$540) every three months for one year. The contract could then be renewed.

(Field notes, March 2016)

As a political representative of his legal community, Silvio could sign in his community's name. Along the long road to Indigenous land title, this Mbya community in Concepción underwent many moves. Their first contact with the NGO who helped them through the land titling process began when they were evicted from their *tekoha* in San Pedro in the 1990s. They were living under power lines on state land, which was the only open land they had found to settle. After the NGO contacted the Paraguayan Indigenous Institute (INDI), the families were accepted by a Mbya community with land title to live there temporarily, and then they were moved 150 km to Concepción in 2011–2012 with a promise from then-INDI president to purchase land. There, they were provided seeds by the NGO and they cultivated many staple crops like corn and manioc, when they were evicted again. Finally, in 2012, they were placed south of Belén on a sandy strip of land near the river, which the next INDI president Quesnel purchased for a very large sum of money,²² where they moved in and began their settled lives. This community was then expected to figure out how to reconstruct their livelihoods and ensure their autonomy within the leftovers, even when the land recovered was insufficient for agroforestry and had almost no forest left and they had no seeds to even start a garden.

In this context, the reordering of the Paraguayan property regime created new boundaries and new neighbours. Ranchers and farmers from Paraguay, Brazil, or further abroad all became neighbours with the Guaraní and privatised land within Guaraní territory, creating new relationships, though mostly with staff rather than the absentee landowner. Title made the Guaraní into landowners, similar to their new neighbours, but with the key difference that Indigenous collectively titled land cannot be rented or sold according to the Paraguayan Constitution. Nevertheless, as a leader explained to me, having title makes their communities attractive to their wealthy neighbours who wanted to rent out that land for pasture and further deforest it. Thus, large-scale cattle rancher neighbours and their staff often brokered rental contracts with community leaders. In the case of newly created communities where government support is slow to appear and people must make do with almost nothing, renting can appear as a viable option to survive.

This case shows some of the many problems involved in rental agreements of collectively titled land. Ranchers and Guaraní leaders negotiate these contracts personally. Silvio's death left the rancher's contract without its legal counterpart, leaving the fate of the community's land in limbo. Through collective land title law 904/81, political leaders act as legal representatives of Indigenous communities, which transformed their position in the community. Political leaders can sign contracts with others that involve goods and services, like cash, that are usually shared with kin instead of the entirety of the community (see also Bogado, 2018). Therefore, a single political leader can sign an exploitative contract as a community representative. When communities are made up of various kin groups who do not always agree, political representation may not reflect a community-based decision. Yet without representatives, other legal processes such as state subsidised infrastructure and schooling stall.

The abysmal amount that the community would receive as rent appeared to be a large sum to the community. Yet it was far below market value. Near the Ypane river with its sandy soil, land with some forest (and therefore richer soil) like the Mbya community was highly desirable, as ranchland nearby rented at a premium of €25,000

²²Ex-INDI president Quesnel is currently serving jail time for illegally selling Indigenous land in the Chaco region of Paraguay.

(approximately US\$5 in 2018) per head of cattle. In the rental contract, however, Silvio, the Mbya leader, was slated to be paid G10.000 (approximately US\$2) per head of cattle. This difference in pricing is due to a variety of factors, but it is mainly based on differential access to information about the land market and pricing. While many Guarani can have everyday conversations about land prices, renting and the market as they interact with their neighbours, often, it is with the same ranchers and campesinos who then wish to rent Indigenous land. Paraguayan campesinos participate in the rental market with rates far below market value, so they may affirm these low rates. Guarani communities do not consult about contracts to NGO partners because they discourage renting. Guarani literacy rates are increasing, but Guarani as an oral language predominates, and while most rental contracts are signed by the leader, the rest of the community members sign with their fingerprints as they do not read or write in Spanish. Finally, most rental market information is in Spanish or Portuguese, with the highest rental prices posted in online advertisements on sites like Facebook. Internet access in communities is varied depending on access to wage work, mobile phone use and network coverage, leading to important gaps in access to information about land rates.

Some Indigenous people act as brokers to promote renting. For example, in a rental contract that I analysed, an Indigenous couple²³ acted as intermediaries, linking ranchers to Guarani communities, drawing up rental contracts and taking a cut of the profits. In order to justify the need to rent, the written contract they drew up specifically recognised the loss of the Atlantic Forest as impacting Guarani livelihoods. Their contract stated that renting is the most logical solution in the altered ecological landscape: 'Only 30% of the community remains forested; the rest is savanna ... the INDI (National Indigenous Institute) has failed to support Indigenous livelihoods.' Therefore, the contract claimed the community *must* turn to renting 'as part of their consuetudinary decision making' on their livelihoods. The contract's wording was unambiguous as it drew on this human rights language, citing the Paraguayan Constitution's (1992) Articles 63 and 65 that affirm Indigenous consuetudinary (customary) rights to carry out their livelihoods. The contract does *not* include Article 64 on collectively titled Indigenous lands, which 'cannot be used to guarantee contracts nor to be rented', skipping over it. A notary public had signed and stamped the simple contract, though renting Indigenous lands is unconstitutional. While there is no mechanism by which the Indigenous community loses their land title due to unconstitutional renting contracts, they often lose NGO support, such as for smaller agricultural initiatives.

During renting, communities quickly find that heavy cattle are different from other animals. They trample gardens and eat corn, ruining crops, causing inter-community conflict and reinforcing dependency on purchased foods as they occupy any space without fencing. Guarani cultivated gardens do not survive trampling cattle, and fencing off each area under cultivation is cost-prohibitive. Many rental contracts, like this one, involve the majority of community land, as ranching requires extensive pasture through deforestation. On one occasion I attended, some Guarani community members came to an NGO meeting without their leader. They said the cattle were trampling their gardens and ruining their corn, but their leader was unwilling to break the contract. Therefore, they bypassed their leader to ask for NGO help to end an exploitative rental contract. 'You know your options,' the NGO worker advised them. 'The last time this happened you filed an ecological complaint (*denuncio ecológico*) and the rancher had to remove his cattle. But you have to follow through, or the complaint will just sit in the office' (NGO worker, 2016). The NGO had supported the community in filing the first ecological complaint, but they were remiss to help again after the community went back to renting. Even if a community ends the contract and expels the cattle, they are left with pastureland. Thus, deforestation occurred on privatised lands around the communities *and* within the leftovers of collectively titled communities themselves.

As for cattle ranchers, the rental contracts themselves are usually designed to recoup rancher expenditures in ways that may not be obvious at first glance. It is common practice to include a clause discounting the infrastructure costs from the total paid to the community. In other words, any construction required to create grazing paddocks is written off as infrastructure investments. Nominally, it appears that the rancher is doing a good deed by improving

²³One is from the Chaco region across the Paraguay River, and one is from Guarani communities. The couple is uniquely versed in Indigenous rights and Guarani culture.

fencing or helping to link up electricity in the community; however, these costs are discounted from the community's earnings. Communities are obliged to pay restitution for cattle deaths, even if they die from illness or accidents, and cattle are legally as protected as humans. Killing the cow that has been eating your crops is a crime punishable with sentences of years in prison, similar to first-degree murder. If a cow happens to die on Indigenous property, and they eat the meat, they can still be charged with cattle rustling, with up to 10 years in prison (Article 163, Paraguayan Penal Code, 2001). Ranchers, or their staff, propose renting by inviting community members to a community-wide barbecue with gifts. Upon signing, however, the cost of the festivity is discounted from rental payments, meaning the community begins its contract in debt. Sometimes ranchers fail to pay after the first few payments, effectively occupying the land through their cattle, and communities lose effective control of their land.

For cattle ranchers, renting makes more financial sense than purchasing land with this recouping, along with other political and economic factors. I spoke with a high-ranking member of Concepción's industrial slaughterhouse on the condition of anonymity, which raises its own cattle in addition to purchasing cattle from ranchers. He explained that they used rented land until it was exhausted: 'The [land] owner has to make a decision about how to renew the land, not us. We can rent from someone else' (Interview, August 2018). Brazilian capital was used to finance the slaughterhouse, giving ranchers a key financial stability permitting them to expand at an industrial scale. Dynamics of the regional market also spur interest in renting Indigenous communities, as Brazilian capital flows in to rent and purchase land in Paraguay that is three times cheaper compared with Brazil.

With more cattle than people, and more grasslands than forest, the microclimate in the study area has changed. Deforestation is often linked to extremes such as flooding and droughts; for example, Paraguay's rivers oscillate between all-time highs and lows.²⁴ When I asked about the large-scale deforestation and local climate impacts that cattle ranching implied, the high-ranking slaughterhouse member hesitated and then said: 'I don't have any children, I'm young ... I don't think the long-term impacts are something I have to worry about personally.' Though some ranchers affirmed that they kept small patches of forest according to Paraguayan ecological law, many deforest and pay a relatively small fine.

A long-term challenge to forest-based livelihoods by cattle ranching is the biology of invasive grasses. Spatially, ranches create large swaths of monoculture, cleared by fires, which are hard to control. Designer grasses such as *pasto colonial* (literally colonial grass; *Megathyrus maximus*) have no respect for property lines and, like fires, can be released intentionally by ranchers to smother out subsistence farming as they take root in ploughed fields and gardens and compete with corn. The grass itself colonises the edges of remaining forest, fuelling forest fires that would otherwise not burn as hot or as quickly (El Nacional, 2021). Newly cleared areas for Guarani gardens are quickly overgrown with choking grasses in a matter of weeks. The new grassy landscapes within Guarani communities are produced despite holding title, as grass and fire cross property lines.

Within Guarani communities, the loss of territory has meant many sacred sites, including cemeteries, are fenced off. With the rapid, large-scale loss of forest, many youth today do not remember the unbroken forest, and the Guarani relationship with the forest and their livelihood practices are rapidly changing. One night in a titled community, a young Guarani leader and I looked up at the nearly full moon outside her home. She said, 'My grandmother used to know when to plant and when to harvest in the forest because of the stages of the moon. I don't know how to listen to it. I don't have that knowledge (*arandu*).'

In sum, within the context of both deforested and fragmented territories, the Guarani who received collective title did so with little other government support, for lands that may not be able to support their forest-based livelihood. In order to request collective land title, communities must move to available land and then become fixed in place, requiring an adaptation of their shifting fields in fragmented territories. Some communities were evicted from multiple private estates, losing their possessions and seeds along the way, before gaining collective title in a different area of their territory. INDI sometimes cobbled together different family lineages to form one legal titled community

²⁴The Paraná River flooded in 2015, reaching its second-highest December ever recorded, yet recently reached its lowest levels in 77 years in 2021, while the Aquidaban River recently overflowed its banks in 2023, necessitating helicopter rescues where people were stranded on rooftops.

or housed them in another temporarily, despite the families never having lived together before, even combining different Guarani ethnicities. Other communities camped on the side of the road near their land for years until regaining access through long court fights, finding their land deforested and covered with sugar cane or pasture. Thus, renting is proposed as a livelihood solution to the problems that fragmentation and deforestation caused, in effect bringing ranching into the community itself through unconstitutional renting contracts. Loggers, ranchers and companies gain access to land and resources through leaders who may grant permission because their communities trust their judgement or even despite their communities' decisions otherwise, complicating the intent of collective titling to allow for community decision-making about their livelihoods.

5 | CONCLUSIONS

The premise of collective land titling appears to be simple—that states can resolve the issue of Indigenous autonomy and livelihoods by granting them collective property. This liberal, community-based titling model allowed states to claim that they were dealing with the problem of Indigenous land loss, while making sure that only small pieces were available for Indigenous communities. The two case studies show the making of the leftovers, where the process of Indigenous land titling facilitated a particular set of social, political and capitalist relationships. These convoluted titling processes add to the fragmentation of Indigenous land, effectively turning over the rest of the territory to state administration and market logics, including concessions, conservation areas and private ownership. We found that fragmentation occurred while Bunong and Guarani collective land titles were in process and continued on Guarani collectively titled lands through renting. In our cases, Indigenous efforts are tied up in obtaining titles and maintaining effective control; thus, it is important to heed the warning that the legal frameworks of liberal multiculturalism can 'divert social energy from other political and social forms and imaginaries' (Povinelli, 2002, p. 7). In the long history of Indigenous land dispossession, the concept of 'leftovers' highlights that community-based titling appears to be a solution on paper, but it is not successful in ensuring autonomy nor stopping land fragmentation and further loss of land control.

Our two case studies documented that Indigenous communities must adjust their livelihood practices to reduced and scattered lands when living in the leftovers, in the context of massive land use change to rubber plantations and cattle ranches. Land fragmentation puts strains on flexible, mobile or rotating livelihoods. In Cambodia, we saw a shift from hill rice to rubber in a transition to permanent cultivation while title claims continue to drag on. In Paraguay, we saw a shift from corn to cattle, as some successfully titled communities rent their land to ranchers through irregular rental contracts and grass-choked and cattle-besieged gardens become unviable. We showed that collective land titling, when focused on titling communities instead of entire territories, is not a simple fix to stave off large-scale forest loss as conservation NGOs might wish, or to 'conserve and develop' Indigenous ways of life, as Paraguay's Indigenous titling law states.

The Bunong and the Guarani sought autonomy over their land and livelihoods. With this autonomy, they carried out a diversity of responses to the shrinking livelihood base of the forest. Some wished to preserve swidden agriculture, hunting, collecting forest resources and traversing the forest, while others decided to try out something different, without really knowing what the outcomes might be. Some Guarani communities rented out their titled lands and learned that ranching made growing their staple crops difficult and not everyone received money. Some Bunong decided to try growing rubber, having to learn how to care for the saplings, intercrop and find new ways to organise their labour. However, for both the Bunong and the Guarani, it is challenging to cultivate the extensive variety of foods they did before, where hunting, fishing and the collection of foods and medicine from the forest are also impacted. While a diversified permanent agroforestry system or cash from cattle ranching may provide livelihood support, these cannot account for the cultural practices associated with forest-based livelihoods. Therefore, the loss of culturally important foods cannot be addressed by swapping them out for other crops or cash. Further, without the vast forests of unbroken territories, it becomes more difficult to 'choose' a forest-based livelihood or to return

to these livelihoods if renting or rubber farming fails, limiting autonomy. Thus, the livelihood shifts we identified in these fragmented territories move people away from the choice of forest-based livelihoods, meaning that full autonomy to decide over Indigenous peoples' livelihoods in the leftovers becomes an illusion.

Specifically, we found that the large-scale land use change configures new realities, which in turn feed into local environments and titling processes in the case studies. Deforestation outside community land loops back onto communities' forest 'islands' in particular ways. In Paraguay, deforestation, spurred by cattle ranching, changes forest into grasslands. Ranchers choose designer grasses that even colonise forested areas, leading to hotter fires that spread when ranchers burn their fields in order to replant. The grasses and fires do not respect Guarani community land titles; they cross boundaries. Thus, despite holding collective land titles, Guarani communities are impacted by the ecological changes caused by surrounding cattle ranching. In Cambodia, Bunong farmers were increasingly surrounded by private rubber plantations. With land titling stalled, they demonstrated their land ownership by planting rubber trees and other perennials themselves, thereby shifting from swidden agriculture to permanent cultivation. But other than in Latin American countries, where land is eligible to be titled after 'improvements', this non-traditional land use potentially threatens the Bunong's status as Indigenous community eligible for communal land title.

The case studies show that the liberal titling approach to secure Indigenous lands overestimates the ability of title to remove land from capitalist logics such as the push to rent or sell. As our cases show, families and entire communities can become indebted the moment they sign a contract that they believe will provide them financial security. In Cambodia, the community members were indebted from day one for the inputs and services provided by the concessions when accepting the option of rubber family scheme as compensation for lost land. While, to date, the concessions under study have not collected their debt, it remains a looming problem. In Paraguay, irregular rental contracts are written to consider gifts given to leaders as debt and to ensure ranchers' infrastructure investments are treated as a debt that Indigenous communities must compensate ranchers for. Therefore, when the contract is signed, the community begins in debt. Moreover, dead or lost cattle are deducted from rent, and in the end, no rent is paid. Communities are left without income, land and effective control. In both cases, what appears to be a solution to living in the leftovers can quickly become economically unviable.

With the uneven outcomes we have shown, it is imperative to pay attention to what happens when Indigenous peoples can no longer or no longer want to use the leftovers 'traditionally', particularly when dynamic change is taking place all around them as part of market processes, directly impacting their way of life. The Indigenous struggle to determine their land, autonomy and way of life, and the concurrent political and social forms and imaginaries, are channelled into the process of Indigenous collective land titling. In both countries, titling and the recognition of indigeneity was established on government terms. In Cambodia, titling advocates thus advised Bunong communities to give up land claims overlapping with concessions as this would inhibit the titling process. In Paraguay, NGOs encouraged small, mobile settlements to permanently settle down and consolidate with other families in order to fit government criteria for community-based titling. While their Indigenous status may not be in question if they rent out their land to ranchers, it is still unconstitutional, and *indigenista* NGOs may withdraw support from the communities that must then navigate state bureaucracies on their own. Based on these findings, we find it important to draw attention to these issues with liberal approaches to formalising collective land titling, where Indigenous struggles for their ways of life are converted into relations of property. Not only does it divert energy away from possible alternatives, it creates leftovers where people have limited 'choices' to adjust their livelihoods, as ecological and economic factors ignore the boundaries that collective title attempts to draw.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available because of privacy or ethical restrictions.

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