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Microfinance in the Forest Frontier: Land and livelihood of the Bunong People in a protected area Phasy Res





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Résumé

Au Cambodge, l'endettement des ménages (en termes de prévalence et de taille des prêts) auprès des institutions de microfinance (IMF) et des banques augmente à un rythme alarmant. Les chercheurs et les organisations non gouvernementales (ONGs) ont identifié divers impacts négatifs sur les emprunteurs de la microfinance, tels que la perte de terres par des ventes forcées (LICADHO et Sahmakum Teang Tnaut, 2019; Green & Bylander, 2021; Bliss, 2022), la migration de détresse (Bylander, 2014; Ovesen & Trankell, 2014; Green & Estes, 2019, LICADHO, 2020; Green & Estes, 2022), la baisse de la nutrition des ménages par la réduction de la consommation alimentaire (Seng. 2018; Res. 2021; Brickell et al. 2022), des retards dans la recherche de soins de santé (Iskander et al, 2022), voire des suicides et des pertes de vie (Brook, 2023). À la lumière de ces impacts alarmants, cette étude vise à explorer le rôle de la dette de la microfinance dans l'élaboration de la sécurité foncière et des moyens de subsistance des ménages des populations autochtones notamment les Bunongs et la dynamique de la déforestation dans l'une des zones protégées du Cambodge, le Keo Seima Wildlife Sanctuary (KSWS). L'analyse présentée dans ce rapport se fonde principalement sur les 114 entretiens, essentiellement avec des ménages Bunong, réalisés dans quatre villages du district de Keo Seima en août et septembre 2022. Elle s'appuie également sur des données d'enquête représentatives recueillies par la Wildlife Conservation Society (WCS) dans 20 villages du sanctuaire de faune de Keo Seima en 2012 (N = 622), 2017 (N = 620) et 2022 (N = 890). Ce rapport montre que la tendance à l'augmentation de l'endettement des ménages (en termes de prévalence et de taille des prêts) auprès des institutions de microfinance (IMF) et des banques est fortement liée à la culture du manioc et au déclin des moyens de subsistance forestiers (par exemple, la collecte de résine, la chasse à la faune et la récolte de bois). Les données montrent que la dette de la microfinance favorise la déforestation de deux manières spécifiques. Premièrement, les prêts accordés par les institutions de microfinance et les banques servent à payer la main-d'œuvre salariée équipée de tronçonneuses, ce qui accélère le défrichage des terres dans la zone protégée. Deuxièmement, les dettes contractées dans le cadre de la microfinance contribuent à la déforestation lorsque les villageois perdent leurs terres, soit directement en raison du remboursement de la dette, soit en raison des coûts des soins de santé, et se retrouvent dans une situation désespérée. Cela les conduit à recourir à la surexploitation des produits forestiers tels que le bois, ou à défricher de nouvelles terres pour l'agriculture. Lors de mon travail sur le terrain, j'ai observé davantage le premier scénario que le second, car les ménages les plus pauvres estimaient qu'ils n'avaient pas les moyens de payer une caution s'ils étaient arrêtés pour avoir défriché des terres à l'intérieur de la réserve. Ce rapport conclut sur l'espoir, maintes fois exprimé par les informateurs, d'un retour à la collecte de résine, car de nombreux informateurs ne considèrent pas le recours à l'endettement pour financer leurs activités agricoles, comme une voie vers la prospérité.

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ABBREVIATIONS

ACLEDA - Association of Cambodian Local Economic Development Agencies

AMK - Angkor Microheranhvatho Kampuchea

COVID-19 - Coronavirus Disease of 2019

CMA - Cambodia Microfinance Association

GDP - Gross Domestic Product

ICLT - Indigenous Communal Land Title

Kg - Kilogram

KSWS - Keo Seima Wildlife Sanctury

LICHADO – Cambodian League for the Promotion and Defense of Human Rights

MFIs - Microfinance Institutions

MSGs - Monosodium Glutamate

NGO - Non-governmental Organization

NBC - National Bank of Cambodia

NTFPs - Non-timber Forest Products

UNTAC - The United Nations Transitional Authority in Cambodia

USD - United States Dollars

WCS - Wildlife Conservation Society

SUMMARY

Numerous studies, particularly in the lowland provinces of Cambodia, have shown that the practice of debt collection to ensure full repayment at all costs has had a devastating impact on borrowers throughout Cambodia. Given the prevalence of household debt and the numerous findings of its disastrous consequences, and the lack of studies on the impact of debt on Indigenous communities and deforestation in protected areas, this study aims to shed some light on the issue. This study, therefore, aims to explore the role of microfinance debt in shaping the land and livelihood security of Bunong households and the dynamics of deforestation in one of Cambodia's protected areas, the Keo Seima Wildlife Sanctuary (KSWS).

The analysis in this report is primarily based on the 114 interviews, mainly with Bunong households, conducted in four villages in the Keo Seima district in August and September 2022. It is also based on the representative survey data collected by the Wildlife Conservation Society (WCS) in 20 villages in Keo Seima Wildlife Sanctuary in 2012 (N = 622), 2017 (N = 620) and 2022 (N = 890). This report shows the increasing trend of household indebtedness (in prevalence and loan size) to microfinance institutions (MFIs) and banks. The rising trend in debt is strongly linked to cassava cultivation and the decline in forest livelihoods (e.g., resin collection, wildlife hunting, and timber harvesting). Over the past four years, the Bunong people of Srae Lvi have relied heavily on debt for agricultural production and social reproduction (i.e., food, housing, funerals, and weddings), while many borrowers in Kati are in their first cycle of MFI/bank loans. Borrowing in these two villages is more recent compared to other villages in the Keo Seima district, namely O Rona, Srae Preah, and O Am (see also Mahanty & Milne 2016). The amount of household credit has increased from cycle to cycle and, in some cases, has doubled. Such an increase in the amount of credit raises doubts and concerns among my participants, some of whom describe this growing trend as an addiction (chók or nhaam in Khmerl.

As will be shown in the section on loan structure and debt repayment, the villagers of Srae Lvi and Kati have borrowed extra money to pay the interest at least several months in advance, which is clearly unproductive. Are there any options that would allow more flexibility in the payment of interest, such as a lump sum payment at harvest time at the end of the loan period? In fact, informants tell me that although informal lenders charge a much higher interest rate (5 to 10 percent per month), they collect the interest payment at the end of the loan period. Perhaps WCS could consider working with MFIs/banks that are active providers in KSWS to design a loan product that is more suitable for farming communities that depend on seasonal income in

terms of loan terms and conditions such as loan duration, principal payment (*leung deurm* in Khmer), and interest payment (*leung ka* in Khmer).

As Cambodia gradually moves towards a cash-based economy, rural villagers, even those living on the edge of the forest, are finding it increasingly difficult to live without cash. The shift towards reliance on MFI/bank debt at an interest rate of 18 percent per annum (excluding other services) for agricultural production and social reproduction has worrying implications for the land and livelihood security of Indigenous Bunong households and for conservation efforts. The informants of O Rona, Srae Lvi, and Kati have a collective form of land ownership called Indigenous Communal Land Titles (ICLTs). This form of land ownership was intended to limit land dispossession and alienation through market forces. This means that individual land titles cannot be issued, a piece of land within the communal land title boundary cannot be used as collateral, and land cannot be sold to outsiders. Based on my interviews, there seem to be different perceptions among borrowers about whether a piece of land within the ICLTs can be used as collateral. Among those who have individual loans, when asked whether their loans are secured, some believe that their loan is secured, while others do not. Although there are different understandings of whether a piece of land can be used as collateral within the ICLTs, there seems to be a consistent understanding that microfinance institutions (MFIs) and banks could and would sell a piece of land to repay the debt if borrowers were unable to repay it. Indeed, my household interviews revealed that villagers often sell a piece of their land within the ICLTs to pay off debts or directly cover medical expenses, even at below-market prices.

Among Indigenous communities with communal land titles, debt drives deforestation in two specific ways. First, MFI/bank loans are used to pay for hired labor equipped with chainsaws, which facilitates faster land clearance in community or core zones. The expansion of agricultural land in Cambodia's uplands is not only due to the boom in cash crops (mainly cassava) and migration (Mahanty & Milne 2016; de Lange 2022; Mahanty 2022). This study shows that this is also due to the villagers' lack of trust in the ICLT committee, local authorities, and conservation groups to secure land for their descendants (future users). This creates a tendency to clear now before it is all gone. Thus, the households with the means and capacity to clear more land do so at the expense of deforestation and to the detriment of poorer households who depend on forest products for their livelihoods. I wonder if it is possible for WCS to work with local authorities, the Ministry of Environment, and relevant stakeholders to ensure the availability of land for future users, at least for the communities holding ICLTs?

Second, debt contributes to deforestation when villagers lose their land, either directly through debt repayment or through health care costs, and are placed in a desperate situation. This leads them to rely on the over-exploitation of forest products such as timber or to clear new land for

agriculture. In my fieldwork, I observed more of the former scenario than the latter, as poorer households felt they could not afford to bail themselves out of jail if they were to be arrested for clearing land. The fear of being arrested for land clearance was more ominous than the fear of being arrested for logging. This fear was probably shaped by several cases where villagers were arrested for clearing land that had been classified as core zones (dombon snoul in Khmer) of protected areas.

This report concludes with the hope, repeatedly expressed by the informants, for a return to resin collection (kom rohach in Bunong). Many informants do not see the dependence on debt to finance their agricultural activities as a path to prosperity. Those who still have resin trees, especially in Kati, prefer to rely on their resin trees rather than MFI/bank loans. However, those who have lost access to or lost resin trees (in the case of O Rona, Srae Preah, and Srae Lvi) will continue to rely on MFI/bank loans to finance their food, basic needs, medical expenses, agricultural activities, and ritual events (i.e., funerals and weddings). As will be discussed in Section 3, the resin trees in Kati were under threat from logging. Although there were regular community forest patrols, the people of Kati, and even some of the patrollers, felt that this was not enough to protect their resin trees and prevent deforestation in general. One of the community forest patrollers suggested involving the relevant authorities in these community forest patrolling activities. I was also told in an informal group discussion that the patrollers should be equipped with modern technology, such as spy cameras and recorders, to increase their security. For the rest, I leave it to WCS to think about how the REDD+ fund can be used to increase the effectiveness of activities that could save the resin trees and prevent deforestation in Keo Seima Wildlife Sanctuary.

An important piece of policy-oriented research to complement this study would be to focus on financial regulators and actors, namely the National Bank of Cambodia (NBC), the Cambodia Microfinance Association (CMA), the Association of Banks in Cambodia (ABC), microfinance institutions (MFIs) and banks that are active providers in the Keo Seima Wildlife Sanctuary. Research could begin by exploring whether there are policies or protocols in place for lending to Indigenous Communal Land Titles (ICLTs) holding communities and those living in protected areas. What are these policies and how are they implemented? Post-disbursement monitoring and evaluation activities are other research elements that could be considered. What are these activities? And again, how are they implemented on the ground?

1. Introduction

Microfinance has been provided to borrowers in the lowland provinces of Cambodia since the early 1990s in the form of a non-profit institution. In the early 2000s, these institutions were transformed into commercial microfinance institutions (MFIs) or banks. At the global level, this transformation is taking place in Bangladesh (Karim 2011), India (Mader 2015; Radhakrishnan 2021; Kamath and Joseph 2023) and Mexico (Soederberg 2014). A decade later, critics have argued that the growth of Cambodia's microfinance sector is oversaturated (Gonzalez 2010; Gonzalez and Javoy 2011; Krauss et al. 2012), leading to household overindebtedness (Bylander 2016; Bylander et al. 2019). In 2012, motivated by concerns that over-indebtedness has become one of the most serious risks for the microfinance sector, microfinance investors commissioned the first study on over-indebtedness in Cambodia (Liv 2013). By 2015, data showed that average household debt exceeded national income per capita (see Figure 1).

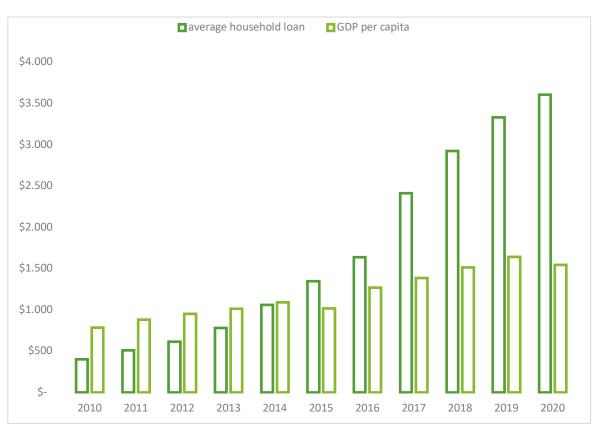


FIGURE 1: AVERAGE HOUSEHOLD LOAN AND GDP PER CAPITA IN CAMBODIA

SOURCE: CAMBODIA MICROFINANCE ASSOCIATION (CMA) 2020- ON AVERAGE HOUSEHOLD LOAN. WORLD BANK DATA- GDP PER CAPITA

Debt and being indebted is not a novel phenomenon in human societies, as Graeber (2011) has shown that various debt systems have existed in most rural societies around the world for thousands of years. However, microfinance debt, driven by development ambitions to alleviate poverty, is the most contemporary form of debt among other forms of debt that exist in Cambodian societies. As discussed previously, the development and transformation of the microfinance sector in Cambodia has evolved from a non-governmental organization (NGO, Angkar in Khmer), to banks or microfinance institutions (MFIs) that currently hold USD 11.2 billion in microloans (National Bank of Cambodia 2022), rising to USD 16 billion by March 2023 (LICHADO 2023), serving more than 2.6 million borrowers across Cambodia (LICHADO 2020b). To this day, most Cambodians living in rural areas, including those in the highlands, refer to banks or MFIs as Angkar. Unlike other forms of debt that exist in Cambodia, microfinance relies not only on moral sanction but also on collaterals (land and house titles), legal, and bureaucratic sanction through its physicality in the form of loan contracts (kech sonya khchie luy in Khmer). Local authorities, mainly the commune police, the commune chief, and the village chief (sometimes the district office) are important actors in reinforcing this loan contract to ensure that the debt is repaid, often at all costs (see also Green 2020).

As evidence has shown, the practice of debt collection to ensure full repayment at all costs has led to the loss of land through coerced sales (LICADHO, and Sahmakum Teang Tnaut 2019; Green & Bylander 2021; Bliss 2022), forced migration to seek labor or other opportunities for repayments (including debt bondage) (Bylander 2014; Ovesen and Trankell 2014; Green & Estes 2019, LICADHO 2020; Green & Estes 2022), declining household nutrition through a reduction in food consumption (Seng 2018; Res 2021a; Brickell et al. 2022), delays in seeking health care (Iskander et al. 2022), and even suicide and loss of life (Brook 2023). In Indigenous communities, studies have also shown that microfinance lending has contributed to undermining the process of Indigenous Communal Land Titling (ICLT), as Indigenous households seek individual titles as collateral, mainly for MFI/bank loans (Milne 2013; Baird 2023).

Despite the prevalence of household indebtedness and the evidence of its disastrous consequences, driven by debt collection practices designed to ensure full repayment at all costs. There is still limited research on the impact of microfinance debt on Indigenous communities and conservation efforts in protected areas. Emiel de Lange (2022) conducted a five-month in-depth study of households living in community zones in Preah Vihear province and found that debt is driving deforestation in the Kulen Promtep Wildlife Sanctuary in several ways. Firstly, it facilitates increased integration into unstable cash crop markets and the expansion of agricultural activities, as loans are used to purchase equipment, inputs, or hire labor. Secondly, it is encouraging some households to clear additional forest as they sell land to pay off debts or meet essential

medical costs. Third, it drives migration into the protected area, as indebted and landless migrant households seek cheap land on the forest frontier, while investors also buy land sold by local communities. A previous study from the Keo Seima district in Mondulkiri province also found that MFI/bank debt played an important role in the transformation of the highland agricultural landscape, particularly the shift to cassava cultivation (Mahanty and Milne 2016). Milne (2013) also observed that some Bunong households in O Rona village, Keo Seima district, opted for individual hard titles rather than Indigenous Communal Land Titles (ICLTs) because they believed it could be used as collateral for loans, mainly from MFIs or banks. As a point of comparison with the findings of de Lange (2022), and building on the work of Mahanty & Milne (2016) and Milne (2013), this research aims to explore the role of microfinance debt in shaping the land and livelihood security of Bunong households and the dynamics of deforestation within the Keo Seima Wildlife Sanctuary (KSWS).

Thus, this research focuses on the impacts of microfinance debt on one of the Indigenous groups who live in northeast Cambodia, namely the Bunong people. The Bunong is one of the Indigenous ethnic minorities living mainly in the highlands of Mondulkiri Province and the central highlands of present-day Vietnam. Many Bunong communities still live and farm in areas classified as community zones of Mondulkiri's protected areas. However, access to non-timber forest products (NTFPs) in the core zones is restricted under Cambodian protected area laws. In 2001, the Land Law was passed with an article that allows the Bunong and other Indigenous ethnic minority groups in Cambodia to collectively claim a piece of their customary land. On the other hand, scholars argue that under this legal framework, much of the customary territory of Indigenous peoples in Mondulkiri and Ratanakiri has been taken over as protected areas or as part of economic development programs through economic land concession projects (Baird 2009; Milne 2015; Dwyer 2015; Diepart & Schoenberger 2016).

Although the law was passed in 2001, it was not until 2009 that the journey of collectively claiming a piece of land began, when Sub-Decree no. 83 was issued to provide detailed guidelines. The process of collectively claiming a piece of land is known as Indigenous Communal Land Titling (ICLT). As a first step to collectively claiming a piece of land, the ethnic minority groups in the highlands of Cambodia must pass an ethnicity verification process to prove that they belong to a specific Indigenous group, known in Khmer as *chun chiet daeum pheak tech*. Language and material culture, such as gongs and traditional clothing, were essential for highlander minority groups to pass this process. Baird (2019) reported that the assessments were mainly carried out by central government officials, mainly from the ethnic Khmer majority, and the assessment criteria included speaking ethnic languages, dancing, and performing songs. In one case, the Brao people (one of the Indigenous groups in Ratanakiri)

were trained to use gongs, even though it was not historically theirs (Baird 2019). The author concludes with the frustration of learning how demeaning this ethnicity verification process was (Ibid). Passing this verification process was just one small step in the Indigenous Communal Land Titling (ICLT) procedure. This long and bureaucratic process of communal land titling has received much attention and criticism from scholars (Baird 2013, 2019; Milne 2013; Leeman 2019; Beban 2021). Despite this lengthy and bureaucratic process, the Bunong in my study area were able to obtain their ICLTs, which is located within the community zones of Keo Seima Wildlife Sanctuary.

In addition, this research focuses on microfinance debt, which is debt resulting from a microfinance loan granted to a borrower by either a microfinance institution (MFI) or a bank. This is because this form of debt is becoming increasingly important in the way societies are organized in both the lowlands and the highlands regions of Cambodia. In Mondulkiri, representative household surveys conducted by WCS in 20 villages in KSWS (N= 622 in 2012, N= 620 in 2017, N= 890 in 2022) show an increasing share of microfinance debt among other forms of debt. The proportion of households with microfinance debt and the proportion of indebted households was 8.4% and 28.6% in 2012, 29.8% and 39.7% in 2017, and increased to 47.8% and 52.9% in 2022, respectively. Although this study focuses on microfinance debt, I discuss how microfinance debt relates to or coexists with other forms of debt (e.g., debt to relatives or informal private moneylenders).

This report is divided into six main sections. It begins with a description of how, when, and where the data was collected. The second section describes the lives of the Bunong households after they returned to their war-ravaged villages in the Keo Seima district after three decades of civil war and turmoil. The third section discusses the shifting of livelihood to depend on cash crops such as cassava and cashew as the main income source. Once the source of income from logging and resin collecting is drained, microfinance would replace the need for cash for subsistence, agricultural, and other ritual activities and to cover essential medical costs. Based on evidence from Ratanakari and elsewhere in Cambodia, such debt dependency often leads to debt burden and debt bondage rather than poverty alleviation (Bylander 2015; Bylander et al. 2019; Res 2021a; Natarajan et al. 2019, 2020). In rural Siem Reap, for example, Bylander (2015) found that credit was mainly used as a coping strategy in response to livelihood failures. Natarajan et al. (2019, 2020) conducted studies among brick kiln workers and found that being indebted coerced workers to endure harder and more exploitative working conditions.

The fourth section is a demonstration of the recent use of MFI/bank loans by Bunong households, particularly in villages on the edge of the forest. It shows that AMK was an early MFI player in

introducing microfinance to Bunong households, while Prasac was a later player, offering larger loan sizes to Bunong households, including those whose land is within the Indigenous Communal Land Titles (ICLTs). The fifth section shows the increasing trend of microfinance use within the Keo Seima Wildlife Sanctuary (KSWS). Using the case studies of Srae Lvi and Kati, I provide an in-depth analysis of how the loan was used, structured, and repaid. The sixth section elucidates the borrowing and lending practices within the ICLT in Mondulkiri and Ratanakiri and highlights how this can undermine the process of ICLT, especially for those who are still in the final stages of obtaining their ICLT certificate. For those communities that have already received their ICLT certificates (e.g., O Rona, Srae Lvi, and Kati), I ask what it means for Indigenous households to have a collective form of land tenure in the midst of privatization, finalization, and individualization. Finally, I examine how microfinance debt drives deforestation in the Keo Seima Wildlife Sanctuary. I conclude the report with some concerns and hopes. Hopes that were repeatedly expressed by my participants.

2. Research approach and scope

The analysis for this report is mainly based on a total of 114 in-depth interviews, field observations, and landscape surveys. This is complemented by representative survey data collected by the Wildlife Conservation Society (WCS) in 20 villages in Keo Seima Wildlife Sanctuary in 2012 (N = 622), 2017 (N = 620) and 2022 (N = 890). I cite as such whenever statistics from these series of household surveys are used. Field notes were taken systematically to record the daily activities of the village. The landscape surveys were carried out at the end of the fieldwork to see the variety of crops grown in the agricultural fields (miir, chamkar in Khmer), the technical aspect of cultivation, the view of the fields adjacent to the forest, and to observe the tracks of the wild animals that regularly entered the domesticated space and destroyed the crops. In addition, insights are drawn from my two brief field visits to KSWS in December 2013 and January 2020, and eight months of fieldwork in Ratanakiri. The findings from Ratanakiri are used where points of comparison are needed. Note that the fieldwork in Ratanakiri was funded by The Center for Khmer Studies (CKS) under its Dissertation Research Fellowships Program.

Of the 114 household interviews, 107 interviews were selected using convenience sampling while 7 interviews with village elders were selected using snowball sampling. These seven village elders were identified as historical and cultural custodians by village assistants, other village participants, or my host, while for the remaining 107 interviews, the research team

walked around the village talking to anyone who was available and willing to be interviewed. The lead researcher had no prior knowledge of whether households were in debt. The interviews with the seven village elders helped the lead researcher to understand the historical and cultural context of the study area. The interviews were conducted in an open-ended format around four themes: demographic information, agricultural activities and customary practices related to farming and wildlife hunting, indebtedness (to MFIs/banks and informal lenders), and savings activities. In this way, participants were free to talk about their difficulties or any memories or testimonies that they found interesting or exciting to share or to relive these memories.

The interviews were mainly with Bunong households living in the community zones of the Keo Seima Wildlife Sanctuary (KSWS). The interviews were conducted in August and September 2022 in four villages: 34 interviews in Srae Lvi, 15 in O Rona, 16 in Srae Preah, and 49 in Kati. Although data was collected in four villages, the report focuses on Srae Lvi and Kati. To gain some insight into how microfinance debt affects the land and livelihood security of Bunong households and the dynamics of deforestation in the Keo Seima Wildlife Sanctuary (KSWS), we selected one village with a high prevalence of household debt and one village with a low prevalence of household debt. Based on the 2017 WCS household survey (N=620), Srae Lvi was one of nine villages out of 20 villages surveyed that had a relatively high debt prevalence (33%), while Kati had the lowest debt prevalence (3%). The controlling factors were ICLT ownership, mainly inhabited by Bunong households, adjacent to the core zones, and not severely affected by economic land concession projects. Based on these criteria and the controlling factors, Srae Lvi and Kati are appropriate cases to be studied. Later, O Rona and Srae Preah were added as satellite study villages as Srae Lvi residents accused O Rona and Srae Preah residents of encroaching on Srae Lvi's reserved forest. We hoped that the consultation with residents of O Rona and Srae Preah would shed some light on how debtrelated land dispossession has led villagers from O Rona and Srae Preah to seek land in neighboring villages, including Srae Lvi and Kati. In the following sections, I will provide some details on the demographic characteristics of the informants, including age, gender, ethnicity, and family size.

Of the 114 interviews, 94 were with women speaking alone, 7 with men speaking alone, and 13 with husband and wife speaking together. The average age of the participants is 40 years, with a maximum age of 82 years and a minimum age of 19 years. The average and median number of children per household is 3. The maximum number of children per household is 9, while the minimum is 0, but this is because this participant had just married a few months before the interview. Note that 6 participants were pregnant with their second child. In addition, it is common for my participants who belong to the previous generation to have experienced the

death of their children. In terms of ethnicity, 8 interviews were conducted with Khmer households, and the remainder with Bunongs (Bunong sub-groups – Rohong and Biat). 11 interviewees intermarried with Khmer men, and two Khmer women intermarried with Bunong men. Khmer households and the Khmer spouses of intermarried households were mainly from Kratie, Kampong Cham and Prey Veng.

The average length of the interview is 49 minutes, with a maximum of 140 minutes and a minimum of 11 minutes. Interviews are conducted in Khmer and Bunong, and participants are free to respond in either language. The lead researcher is a native Khmer speaker and was accompanied by two Bunong assistants, one of whom lives in and is from the study village, whom I refer to as the village assistant. The other accompanied me through the four villages; she comes from a village not far from Sen Monorum (Mondulkiri's capital), and I refer to her as my assistant. A Srae Lvi village assistant accompanied me and my assistant in Srae Lvi and O Rona, while the Kati village assistant accompanied us in Kati. Note that in Srae Preah I was accompanied only by my assistant as we both felt that we did not need one. When participants spoke in Bunong, my assistant or village assistant helped translate on the spot. As a result, there was a mixture of Bunong and Khmer throughout the interview. I write B. for Bunong and Kh. for Khmer when the local expression is added.

Permission to conduct this research was obtained from the Mondulkiri Department of Environment under number 063/22. This permission was facilitated by the Wildlife Conservation Society (WCS) Cambodia program. All names of interviewees used in this report are pseudonyms.

3. Livelihoods in Transition: resin collecting, wild animals hunting, wood logging

Before discussing the impact of debt on conservation efforts and the well-being of Bunong households. I would like to provide readers with a broader historical and socio-cultural context of the livelihoods of Bunong households living in the community zones of the Keo Seima Wildlife Sanctuary (KSWS). When the villagers of Srae Lvi, O Rona, Srae Preah, and Kati returned to their war-ravaged villages in Keo Seima in the late 1980s, either from temporary camps in Memang or O Rang, they started from scratch to make a living from collecting bomb shells. This is also the case with Ratanakiri (cf. UK 2011, who did her doctoral fieldwork among the

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¹ I was told that the current Srae Khtum commune chief (Ta El) was drawn to Keo Seima as a bomb shell merchant (neak tinh et chay in Khmer).

Jarai people in Plei Leu village situated on the Ho Chi Minh Trail). In Keo Seima, as in the rest of Cambodia, the collection of bomb casings and other unexploded ordnance has created a small economy. A 44-year-old woman with 8 children residing in Kati recalls: "When I came down from O Rang, I was still a teenager, the metals were scattered everywhere. Outsiders (neak krao in Kh.) came to Kati to look for iron, the head, and ears of the bombs, and they found many boxes of ammunition.

On their return to their home villages, many also began to grow rice (for their own consumption) in a landscape infested with explosive remnants of war. After the Khmer Rouge soldiers stopped operating in the forest, many began collecting forest products, mainly resin. As a 50s-year-old female residing in O Rona shared, she came down from Memang around 1988, at a time when there was still fighting between different factions until around 1993 (Cambodia's first national elections, supported by UNTAC). She went on to say that when a piece of cleared land was burned for farming, people had to stay away because it was dangerous, as explosive remnants of war that littered the countryside exploded (see Photo 1). She told a sad story of her mother's death in an explosion during a drinking gathering that was part of a ritual ceremony. She described the incident to me, "There was a hole in the middle of the village, the villagers thought it was a natural hole, so they started to use it to dump the dead leaves and other rubbish, I think someone had probably burned this pile of rubbish, that is why this buried bomb exploded." Her mother was one of those who died when it happened.





At the time of this study, although the people (especially the younger generation) seem to be recovering from the intergenerational trauma caused by layers of violence (corvée labor during the French colonial period, Khmerization, American bombing, followed by brutal Khmer Rouge regime with forced labor and executions), the scar of the landscape remains, with explosion craters here and there. These bomb graters serve as visual testimonies of such damages and have become part of the village landscape, for instance, a mud puddle for water buffaloes and a place to dump school rubbish.

3.1 COLLECTING RESINS (KOM ROHACH)

In the early 1990s, the collected resin was directly exchanged for food such as rice, salt, and monosodium glutamates (MSGs, bicheng in Kh.). A 44-year-old woman residing in Kati said one kan (a big bottle) of resin (about 30 kg) was exchanged for 10 or 15 kg of rice. A few years later, resins were exchanged for some cash, starting at 3500 riels per kan, but then the price rose to around 30,000 riels (approximately 7.5 USD) per kan, and that was when many villagers stopped collecting the resin, which was around 2010. Many of my participants remembered the time of kom rohach (collecting resin) as a very difficult time, as they had to walk through dense forest, up and down hills, and were bitten by leeches and mosquitoes. At the same time, they had to be on high alert, worried about a tiger attack or a stampede of wild elephants.

Some remembered that there was another livelihood opportunity that lasted very briefly, involving the sale of bamboo. Around 1995 there were traders from Vietnam who bought some bamboo. Some managed to cut the bamboo and float it down the O Chhlong stream (Dak Glung). By 2010, resin gathering was becoming less and less the main source of cash for the villagers. Some stopped earlier than others as other income opportunities became available. A 42-year-old woman residing in Kati says that her family stopped collecting resin around 2010. While a young woman aged 25, with a son and a few months pregnant, claimed that her family only stopped collecting resin around 2016. Sometimes resin trees acted as a relief fund. A 42-year-old woman said that when she moved from O Chra to Bon Beng in 1998 to escape the mass deaths attributed to a taboo breaking, her family could not grow rice in time, so they collected resin to exchange for rice.

PHOTO 2: RESIN TREE ON THE LEFT, COBRA MUSHROOM ON THE RIGHT.





3.2 RETURNING TO RESIN TREES

At the time of this fieldwork, many participants in Kati expressed an interest in returning to resin collection as a way of financing their farming activities. However, people in Srae Lvi were unable to do so, as many reported that they no longer had any resin trees (teum rohach). People in O Rona and Srae Preah reported that their resin trees had been cut down by a concession company. A 49-year-old man and father of nine children living in Srae Preah said: "No more trees [resin] as the krom hun (company) has cut down (chhouh in Khmer) all our resin trees." As Milne (2015:217) notes, the majority of the three granted concessions (Phuc Kratie-rubber 1, Binh Phuc Kratie-rubber 2, and Eastern Rubber) lie within the Seima Protected Forest (now Keo Seima Wildlife Sanctuary) and Snuol Wildlife Sanctuary protected areas and their community (buffer) zones. The author also reveals that the resin trees were selectively harvested (Ibid). Unlike Srae Lvi, O Rona and Srae Preah, many Kati residents still have numbers of resin trees. For example, a 49-year-old woman with seven children has encouraged her husband to return to resin collection. He had turned her down several times because resin gathering is hard work and he felt he was too old for it. However, the day before we met her, her husband managed to pierce some resin trees, as she says: "Yesterday my husband returned from piercing (choh in Khmer) teum rohach...he managed to choh (pierce) 7 trees in a day."

However, these trees are also threatened by illegal logging, particularly along the O Chhlong and O Kanong streams. Based on my observations and conversations with informants, there seems to be a strong effort among the Kati people to stop the logging. However, they do not feel that their efforts have been effective. They feel that the perpetrators have *ksae* (political networks, see also Beban 2021) or weapons. As a result, many fear for their lives if they try to enforce the laws to stop the logging. My assistants and I met a 59-year-old woman whose husband was one of the community forest patrollers (*krom Ibat prey* in Khmer) who expressed concern that her husband, along with fourteen other forest patrollers, had received a death threat from a Khmer logger after confiscating a chainsaw.

On another occasion, I met one of the community forest patrollers and asked him if he thought the community patrols were effective in stopping deforestation. He replied, "I do not think it is effective. That is why we are worried. Just now, my nephew called and said that there is a group of loggers coming from Angdoung Kroleung [north of Kati village]; he said that this group has a home-made weapon (avut kae chhnai in Khmer) and told us to be careful and not to confront this group. We, the community, are afraid of loggers with weapons because we go to patrol with empty hands (dai tote in Khmer). To be effective, the authorities (samattakech in Khmer) need to join us in this activity." A threat to resin trees is a threat to people's livelihoods and autonomy because, without resin trees, Kati villagers would have to profoundly rely on debt to finance their agricultural activities, ceremonial events (such as weddings and funerals), basic needs, and health care costs (more on this later).

3.3 HUNTING WILD ANIMALS

Hunting wild animals for food has always been an activity for people living close to the forest. However, not all animals were hunted. Depending on the lineage group, certain animals and foods were restricted (*mpao* in B.). These were: *dauk goc* (black-shanked douc langur), *khlaan/thlaan* (python), *kob kung* (elongated tortoise), *kapa* (softshell turtle), *roveh* (elephants), *priit chhorng* (plantain), *mboo peh* (millet), *chel* (red muntjac), *kanach angkorng* (male wild boar), *yial bri* (red jungle fowl), *teum tol* (the elephant foot yam – amorphophallus paeoniiflolius), *teum peng/teum chyoum* (caryota urens), *katay* (rabbit), *peh bai* (cobra), *k'tao dhung* (type of sugarcane).

However, such lists have dwindled as the Bunong have been exposed to wars, Christianity (Catholic or Protestant), modern lifestyles such as modern medical treatments, and, to a large

extent, development processes (Bourdier 2009). For example, a 36-year-old-female participant in Kati stopped observing such customs and tried to convince her mother to stop as well, saying, "Mother, just follow the present way of life, let us eat [these animals], Mother! no need to continue these customs (*mpao* in B.). When my grandfather was alive, these customs were strictly followed...the younger ones like me no longer follow such customs." A 50-year-old couple who moved from Bu Chu (O Rang district) to Srae Lvi explained they stopped the food restriction because they were angry that their parents and children died during the Khmer Rouge. They followed a Bunong custom that if eating a red muntjac, the parents and the children could die. Despite following this custom, their parents, siblings, and children still died. The husband shares, "Yes, I am angry... thus, I do not want to obey their (spirits) power (*om nach* in Kh.) anymore." The experience of the death of children and of parents at times of war despite the customs observation, challenges the logic of these dietary restrictions.

To hunt wild animals effectively, dogs were used to assist in such activity. This technique was also observed by Condominas (1977 [1957]), who conducted his ethnographic study among the Mnong Gar (a Bunong sub-group), who lived in the central highlands of present-day Vietnam. The dogs that helped catch wild animals were kept, while the ones that could not catch the wild animals were considered "not smart" and were sold to the dog traders. For example, I watched my host's daughter-in-law sell her dog to a dog and pig trader, and when asked, she said the dog was not smart (ort chhlat in Kh.) because it could not catch any wild animals. Thus, taking dogs for a walk (bondeur chhkae in Kh.) is a local expression when villagers go out to hunt wild animals. Dogs are used to chase or sniff wild animals. I was repeatedly told that some villagers from Kati and Srae Lvi were involved in wildlife hunting for a living around 2003. At the time of this research, villagers were still hunting wildlife for food and in exchange for a little bit of cash. Most of the animals they got were monkeys and wild boars. Occasionally they got porcupines or freshwater turtles. On the way back from one of our participants who was staying at her house in the miir (agricultural field), which is adjacent to the secondary forest, behind a *kataeng* hill, inhibited by powerful spirits called *brah kataeng* krang or brah krang (neak ta krang in Kh.). We heard an explosion. My village assistant announced, "Someone has shot a monkey." I asked how it worked. She said, "The bullet is made of a marble (kon kli in Kh.), the coconut husk (sakei daung in Kh.) is sucked into the hole, burned, and boom." On another occasion, my host caught a large wild boar. It probably weighed 60 kilos. She sold 35 kilos to her daughter, who was an occasional wild meat trader, for 15,000 riel per kilogram, including the meat and bones.

The rest was distributed to everyone in the village, including Khmer households. My host gave some to my assistant and wanted to give some to me, but I refused, telling her it was a religious taboo for me to eat any pork. My host did not insist because she understood. She herself stopped eating pork for a time when she asked a Cham² healer (*kru cham* in Kh.) to cast a spell to bring her husband home from his mistress.





3.4 Engaging with wood logging (Chan Chhii in B.)

Around 2010, the opportunity to log luxury timber (chan chhii in B., thveou chheu in Kh.) became available, so the villagers got involved. I was told that around 2010, many company trucks (lan kromhon in Khmer) came to Kati to buy timber (for more on the politics of timber extraction and forest exploitation, see Le Billon 2002; Bottomley 2009; Milne 2015; Work et al. 2022). Such opportunities have attracted young Bunong and Khmer men from the surrounding provinces and villages to seek their risky fortunes in these areas. Some ended up marrying local women, while others moved in with their families and later settled in the villages. The luxury woods that were cut from the forest were beng (teum rotae, Afzelia xylocarpa see Photo 5) and neang noun (dalbergia bariensis). However, based on my fieldwork in Koh Kong and Ratanakiri, kro nhoung (dalbergia cochinchinensis) was the most luxurious wood being hunted. As villagers came to realise that engaging in timber harvesting was considered illegal,

²Cham is one of the Muslim ethnic minorities in Cambodia. Other Muslims include Malay and Ch'véa.

many of my informants rarely admitted to personally engaging in timber harvesting. When talking about logging activities, they used the third-person genderless term (ke in Kh.) to describe the activity. They often gave examples of other families in the villages, but never themselves. After spending enough time in the field, I learned that many households were involved in logging activities, especially those with young male labor. This is because logging is a male activity. This is not to say that women do not go into the forest. Sometimes I saw a few women following a group of men into the forest, but mainly to collect the rattan tops ($gol\ reh$ in B., $chong\ pdao$ in Kh.) and medicinal mushrooms (known in Khmer as cobra mushrooms – $chhet\ angkarl$ in B., $phset\ poh\ vaek$ in Kh., see Photo 2).

My host in Srae Preah, however, claimed that her family had never been involved in logging because the money from selling wood was hot money (luy kdao krohai in Kh.). As she claims, "None of my family members make money from logging; it is luy kdao krohai, it is money that is made and gone quickly." She continues, "These people [loggers] are not rich, the wood traders are the ones who are rich. It is very dangerous; last time, at least a few people were killed while transporting pieces of wood." Her comment echoes other stories I have heard. Talking to Sreyneang, who lived in Thmey hamlet (Srae Preah, but her family is originally from Kati). I learned that about eight years ago (2016), her Bunong husband (Kati resident) was killed while transporting a large piece of beng (Afzelia xylocarpa) because this heavy piece of wood crashed into him when his iron motorbike structure fell. Such a death was considered a bad or violent death. She said her dead husband was haunting her and causing accidents to her siblings. As a result, the widow had to burn all his belongings, including a house, as his labor had contributed greatly to its construction. This young woman took out a microfinance loan of USD 10,000 to perform ritual ceremonies to appease his spirit and to start a new life, including building a new house. By the time I spoke to her, she had remarried and had two children (three children in total, one with a deceased husband). She has managed to pay off her debts with the help of her parents, siblings, and current husband. Recently she reborrowed \$5000, leaving her debt at \$10,000. Her monthly debt obligation is around 1 million riels (USD 250). Logging is dangerous, and when death occurs, it creates a financial burden for the family members, which can lead to indebtedness (as in Sreyneang's case). When Sreyneang was a widow for a short period of time, she was fortunate to receive support from her parents and siblings. Note that her father intensively collected resin from their own trees and trees belong to other Kati residents. Some Kati residents saw such an act as stealing, while others saw it as an act of maintaining.

I was told that the timber trade was thriving until 2017, while some said until the start of the COVID-19 pandemic, which was in early 2020. This reminded me of my visit to Srae Preah in January 2020, when a man approached me and asked if I was a wood trader (*neak tinh chheu* in Kh.). I suspect that since then people have been desperate to find the timber traders. This

difficulty could be partially explained by the central government of Vietnam, which has an agreement with the European Union, which came into force in 2019, to remove illegally harvested timber from its supply chains destined for the EU market (To and Mahanty 2019). This has led to a dramatic decrease in logs and sawnwood imported from Cambodia into Vietnam (see Figure 2, Forest Trends 2019).

Vietnam Imports of Cambodian Logs and Sawnwood (2014-19) 700,000 400 350 600,000 300 500,000 Cubic meters (m3) Value (US\$ million 250 400,000 200 300,000 150 200,000 100 100,000 50 0 0 2014 2016 2017 2018 2015 Jan-Jul 2019

FIGURE 2: VIETNAM IMPORTS OF CAMBODIAN LOGS AND SAWNWOOD.

SOURCE: VIETNAM CUSTOM DATA, COMPILED BY VIFORES, HAWA, FPA BINH DINH AND FOREST TRENDS, CITED IN FOREST TRENDS 2021

Volume Logs

· · ValueLogs

Despite the difficulty of selling these logs, I found that there were still a small number of young men engaged in logging. However, many complained that they could not make much money as the luxury woods such as *beng* (Afzelia xylocarpa) and *neang noun* (dalbergia bariensis) had disappeared. At the time of my fieldwork, pieces of *teum ropeh* (xylia xylocarpa, sokrom in Kh.) measuring around 1.6 meters long and 20 cm or 40 cm wide were mainly transported by *a-daek*, an iron-structure motorbike -locally built- to carry the heavy pieces of wood (see Photo 4). On a trip from the forest, loggers earn between 20 and 25 USD, while they used to earn between 200 and 500 USD. While talking to one of the participants in Draung hamlet (Srae Preah), a wood trader came to collect pieces of wood. I asked, "How wide is this piece of wood?" The merchant replied, "*Mok* 20 (width 20 cm) and 1.6 meters long." I continued, "How much will you buy it for?" He replied, "20,000 riels (approx. 5 USD) per piece." Then he threw

Volume Sawnwood

••••• Value Sawnwood

in a remark: "Being a wood trader (*neak rok si chheu* in Kh.) is looked down upon (*thaôk* in Kh.) as we have been blamed and scolded (*ké tha ouy* in Kh.) repeatedly." In the field, I often saw young men (I did not see any women at the time of my study) carrying pieces of wood mainly 1.6 meters long and 20 cm wide. I observed that *a-daek* (iron structure motorbike) could carry up to five pieces of wood, while the normal unmodified motorbike could only carry two pieces of wood. The task looked difficult, especially when the road was slippery uphill and downhill. It is a risky task in exchange for 20 to 25 USD per trip for these less expensive woods (*teum ropeh, teum rokoh* in B., *sokrom and kokoh* in Kh. - xylia xylocarpa and sindora cochinchinensis, respectively).

4. Transition to Cash Crops: cashew and cassava

This section describes how people in Srae Lvi and Kati are shifting to growing more cash crops, mainly cassava and cashew, as their main source of income. I explain how access to loans from microfinance institutions (MFIs) and banks facilitates such activities. Before I begin, it is important to note that resin collection (for some families), wildlife hunting, and timber harvesting continue to be complementary sources of cash and food.

4.1 CASHEW CULTIVATION

I start with cashew cultivation. Of the 114 interviewees I spoke to, there were only 8 households that did not grow cashews. Among these eight households, they did not grow cashews because some considered themselves too old to engage in agricultural activities. While the rest were internal migrants, either from Cambodia's lowland provinces or Bunongs from another district where land availability has dried up. Cashew plants, as in Bunong dieu (dièu written in Vietnamese) - using the Vietnamese word, which is different from my participants in Ratanakiri who use the Khmer word svay chanti (literally translated as beautiful mango) or chanti to refer to cashew. The villagers divide their cashew nuts into two categories: normal cashew nuts grown from seeds (chanti thomada) and chanti pouch (grafted cashew seedlings). At the time of the research, Bunong households did not yet know how to graft the cashew seedings; such grafted plants were bought from nurseries at a cost of between 1000 and 1500 riel (approx. USD 0.12 to 0.375) per seedling. However, my participants complained that they had to spray

some chemical products for the *chanti pouch* to give any fruit while spraying chemical products is not required for *chanti thomada* (normal cashew). A 33-year-old woman with two children who resides in O Rona says, "I have some *chanti pouch*, but I have to put fertiliser and spray some *thnam* (generic terms for chemical products) for it to give fruit." I heard similar stories in Ratanakiri that *chanti pouch* consumed more chemical products than regular cashews. Note that at the time of this research, very few families in Srae Lvi and Kati were growing *chanti pouch*.

The cashew-growing pioneers claimed to have received the cashew seeds from their relatives living in *bri yon* (Vietnam). For example, my host in Srae Lvi (one of the pioneer growers) described a trek of two days and one night to visit his parents and siblings on the other side of the border: "At that time there were no motorbikes, so we walked, it took us two days and one night to get there...we helped our *bong pa-on* (relatives) to collect the nuts, they gave us about 5 kilograms of seeds to bring back". The villagers did not grow cashews at the same time; some started earlier than others, and initially, only otherwise fallowed fields were used to grow cashews. I was repeatedly told that it was not until the early 2000s that more and more villagers began to grow cashews. As in Ratanakari, cashew cultivation began to increase in the late 1990s (Padwe 2011; Ironside 2013). Now, when new fields are cleared, cashew is planted together with rice or directly with cassava (see Photo 6). However, my participants complained that when cashew is co-planted with cassava, the cashew does not grow well. As a result, many still preferred to co-crop cashew with rice until the cashew was a few years old. When the soil is less fertile for paddy, villagers start co-cropping cashew with cassava until cashew overshadows other crops.

Although villagers started growing cashews earlier, cash from cashews was still a supplement to other sources of income such as logging, wildlife hunting, and resin collection (see above). I was told that there was a peak in logging activities around 2016. Some participants recalled that they could make 1 or 2 million a night (approx. USD 250 to 500). Of course, not all families have the means to participate in such opportunities, as such activities require male strength. One of my participants shared: "Unlike my older sister who only has sons, I only have daughters, so they [daughters] could not go to the forest." However, sometimes her elder sister, whose sons were engaged in logging, would give her some money between 20,000 and 50,000 riels (5 to 12.5 USD), for which she was grateful.

PHOTO 6: CASHEW CO-CROPPED WITH RICE ON THE LEFT, CASHEW CO-CROPPED WITH CASSAVA ON THE RIGHT.



4.2 Cassava cultivation and household indebtedness

Towards the end of 2019 and early 2020, as the timber trade wanes (see the above section), the people of Srae Lvi and Kati begin to clear more land for cash crops (mainly cassava, grown in association with cashew). It is important to note that accessible roads also play a role in cassava cultivation and trade (Mahanty 2022). When cassava cultivation was booming in O Rona and O Am in 2012 (Mahanty and Milne 2016), a few Kati residents also tried to grow some, but the inaccessible road from Srae Preah to Kati made it difficult for people to keep trying. The improvement of the road linking the Srae Preah market area to Kati in 2020 has made some Kati residents resume cassava cultivation, while many have just started in 2022. In addition, cassava is only grown in fields that are considered accessible by truck (*koyon* in Kh.). At the time of the interviews, Kati villagers owned five trucks, which were mainly used to transport fresh cassava tubers to traders' stalls in O Rona or O Touk. Four owners are Bunongs and one is a Khmer family from Kompot. Two truck owners among four truck owners I have talked to, bought the trucks with the help of MFI/bank loans. Based on my household interviews, only in the last few years that the livelihoods of the Bunong Rohong in Srae Lvi and the Bunong Biat in Kati have become heavily dependent on cashew and cassava as their main source of income

while logging, wildlife hunting, and resin collection continue to be supplementary sources of income for a few families.

My data show that as more and more Bunong households become involved in cassava farming, microfinance debt is becoming a central means of financing their agricultural activities. My participants are attracted to cassava cultivation because of the cash it promises. A 40-year-old woman in Kati said: "If I grow rice, I just have enough to eat. But then I heard people talking about how if we grow cassava, we can buy a motorbike or have money to drill a well. So, I decided to plant [cassava] this year." As a result, many people used land suitable for rice to grow cassava, preferring to work as day laborers to buy rice and food. As Cambodia moves towards a cash-based economy, rural villagers, even those living on the edge of the forest, are finding it difficult to live without cash. In the same vein, Mahanty and Milne (2016) argue that cassava is a gateway crop to capitalist relations in which land and labor are commoditized. The authors (2016: 191) claim, "Cassava production paves the way to increasingly capital-intensive modes of production, while also inducing seemingly irreversible trajectories of debt, land alienation, and environmental exploitation."

PHOTO 7: CASSAVA AND CASHEW FIELDS IN SRAE LVI.



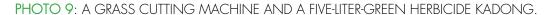
Learning from the residents of O Rona and Srae Preah, who started growing cassava earlier than the villagers of Srae Lvi and Kati. This finding corroborates the findings of Mahanty and Milne (2016), who showed that the villagers of O Am and O Rona started cultivating more and more cassava in 2012. The authors identified O Am as a locus of cassava cultivation (ibid). Now, the Kati people get cassava stems from relatives or buy the stems from fellow villagers in Pu Char, O'Chrar, or Srae Lvi; a *kum* (a large bundle) costs around 20,000 riels (approximately US\$5). Some got stems for free from relatives in nearby villages, while others got them for free in exchange for one- or two days help arranging the cassava stems into *kums* (bundles – see Photo 8).

PHOTO 8: KUM CASSAVA IN THE FIELD ON THE LEFT, KUM CASSAVA IN THE VILLAGE SPACE ON THE RIGHT.



As more fields were converted to cassava and cashew, there was insufficient labor to deal with the grasses. As a result, herbicides and petrol (to run the grass-cutting machine and the herbicide sprayer) were the dominant methods of controlling the grasses in the agricultural fields. At the time of this fieldwork, the price of petrol and herbicides was rising. I was constantly told that a case of herbicide (contains 4 *kadongs* in Kh. – 5 liters each, see Photo 9) has gone up almost double from 250,000 to 480,000 riels (approx. from US\$ 62.5 to US\$120) in the last two

or three years. A *kadong* (28-30 liters) of petrol had gone up to 150,000 riels, whereas before, it was between 100,000 and 120,000 riels (approx. US\$25 and US\$30). Of the 114 people I spoke to, one had suspended growing cassava because of this increase in the price of agricultural inputs. A 33-year-old woman with two small children living in O Rona, who has been involved in cassava farming for 10 years, said at the time of the interview that she had suspended her cassava farming activities because of the rising price of herbicides and petrol.





Others recognized that growing cassava was not profitable. As one 42-year-old woman with five children in Kati lamented, "It [cassava] is not profitable...for example, last year we got 10 million riels (USD 2500) from cassava, this 10 million was not even enough for me to maintain the cassava fields. I even took some money I got from cashews to help maintain the cassava fields. That is why I said it is not profitable." I ask, "If it is not profitable, why are you still growing cassava?" She replies, "I just want to try it for another year and see." While many in Kati are still experimenting with this new venture of growing cassava, some are thinking of giving it up. The above example shows that the villagers are aware of the vulnerability that comes with growing cash crops, in this case, cassava.

On top of the costly agricultural inputs, cassava growers on the edge of the forest also need to deal with wild animals (see Photo 10). My participants often told me that the wild boars, monkeys, elephants, and occasionally porcupines came to eat the cassava tubers or destroy the plants. Walking between the cassava fields, I saw wild boar tracks (in Srae Lvi) and elephant footprints (in Kati). I also observed cassava being uprooted when the tubers were just the size of a finger. I asked how they managed to keep the animals away from the fields. In the case of wild pigs, they tried to trap them, while in the case of monkeys, they tried to chase them. But sometimes a group of monkeys would scare the farm owner away. A 28-year-old woman with two children who lives in Kati said: "I was alone that day because my husband took our children to school... there were like 50 of them. At first, I was not afraid because I only saw two, a mother and a baby. So, I took a bush knife and tried to chase them away. Suddenly there was a group of them [about 50], their eyes were red and they were as big as my children. I ran away and tried to hide in my hut [in the field] and cried." Some chose more creative ways of dealing with wild animals, such as playing music on a loudspeaker (chak thong bass in Khmer), while others lit a power tracker. In telling the stories, many were very afraid of elephants, with only a few young men seemingly revealing the idea that men are stronger than animals or nature in general.

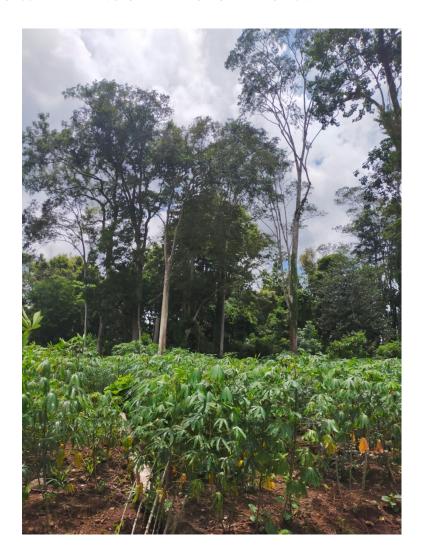
While the actions of animals fighting back when their territory is invaded help determine how many tons of cassava tubers the people of Srae Lvi and Kati might get at harvest time, controlling the grass is another matter. Grass has become difficult to manage - one of my participants was trying out different types of herbicides as they listed the names for me. One household even tried a homemade herbicide that they had learned to make from a YouTube video. She said: "They [the YouTubers] said to mix a kilo of MSG, a kilo of salt, and a kilo of detergent powder and spray it. What a waste of money! It could not kill any grass [laughs]".

The need to use herbicides and petrol to maintain the cassava and cashew fields has made the residents of Srae Lvi and Kati more dependent on cash for farming. When cash in the form of savings is exhausted, households have turned to credit (mainly from MFls/banks) to finance their agricultural activities. A 36-year-old woman with two children says: "I had never borrowed money from *Angkar* (MFI/bank) before; just this year, I decided to borrow 2 million riels. I was told not to worry; they [loan officers] said it was only two million riels, and this amount is like borrowing from relatives. Some borrowed 10,000, 20,000, or 30,000 USD; they are less worried than you". When asked why she needs to borrow from the MFI/bank this year, she replies, "I need money to cut the grass in the fields and buy herbicide. She continues, "We used to have a regular income and less expenses when we were engaged in logging (*tvor chheu* in Kh.). That money is gone...so I borrowed 2 million riels [from the MFI/bank]". The above

examples illustrate that as more Bunong households become involved in cassava cultivation, debt becomes essential to finance their agricultural activities. As income from the forest (e.g., timber and resin collection) declines, debt accumulation and cash crop cultivation become a common way for Bunong households to make a living. Green (2022:851) argues that "agrarian finance is always embedded in the agricultural production relations and social interdependencies of rural life, but that these relations are increasingly shaped by global flows of financial capital, governed by institutions operating at multiple scales". In this sense, the lives and well-being of Indigenous households, even those living on the edge of the forest, such as Srae Lvi and Kati, are no longer isolated but intertwined with institutions and governance bodies operating at multiple scales.

5. MICROFINANCE LANDSCAPE AT THE FOREST FRONTIER

PHOTO 10: CASSAVA FARMING ON THE EDGE OF THE FOREST.



A decade ago, scholars raised concerns about the saturation of microfinance in other parts of Cambodia (Gonzalez 2010; Gonzalez & Javoy 2011; Bylander 2016), but many residents of remote villages in Mondulkiri, particularly among Bunong smallholders, have only recently begun to use the service. Although ACLEDA's presence in Ratanakiri and Mondulkiri reached the highland provincial capitals around 2006, services to remote rural areas were still limited. Based on my brief field visit in 2013 to Bu Kong village in Srae Preah commune (a village on the edge of the forest), I did not encounter any loan officers along the route. In contrast to my recent fieldwork in 2022, where I often encountered them on the road or at food stalls. In addition, in a discussion with my village assistant from Kati, she noted that when she came to study at Keo Seima district secondary school in 2015, there was only ACLEDA. She continues that it was only around 2017, 2018, and 2019 that more MFIs or banks came to set up their offices in the Keo Seima district area, which is located along the national road 76 connecting Mondulkiri to Phnom Penh, the capital of Cambodia.

When Mahanty & Milne (2016) conducted field observations in the Keo Sema district between 2012 and 2014, the authors found that MFI/bank debt played an important role in transforming the highland agrarian landscape, particularly the shift to cassava cultivation. Milne (2013) also observed that some Bunong households in the village of O Rona opted for individual hard titles rather than Indigenous Communal Land Title (ICLT), as they believed it could be used as collateral for loans, mainly from MFIs or banks. However, the 2012 WCS survey found that out of 622 households surveyed, 52 households (8.4%) reported being indebted to microfinance institutions (MFIs) or banks. Although the prevalence of indebted households in Keo Seima Wildlife Sanctuary (KSWS) was 8.4%, this data showed that indebted households were mainly concentrated in O Rona (17), O Am (9), Srae Preah (6), Pu Rang (10), and Pu Trom (6). It also showed that of these 52 indebted households, 28 were Khmer, 19 were Bunong, and the rest belonged to other Indigenous groups such as Stieng and Kroul. Based on the 2012 WCS survey and Mahanty & Milne's (2016) qualitative study conducted a decade ago in the Keo Seima district, debt was mainly concentrated in villages close to the market town, such as O Rona, O Am, and Srae Preah. And it was still mainly held by Khmer households living in the Keo Seima district. Thus, the above evidence shows that Bunong smallholders, especially those living on the edge of the forest such as Srae Lvi and Kati, have only recently used MFI/bank loans to finance their agricultural activities, food, housing, and ritual activities (more in the later section).

5.1 Frontier MFIS – AMK and Prasac

In 2012, the WCS survey showed that out of 52 indebted households, 3 had borrowed from Prasac, 14 from ACLEDA, and 34 from AMK. Ten years later, my data showed that out of 74 MFI/bank loans – held by 59 indebted households in the four villages - 44 loans were from Prasac, 17 from AMK, 5 from ACLEDA, and the rest from LOLC, Amret, Funan, Woori Bank, Hattha, Mohanokor, and Sathapana (see also Appendix 1- List of indebted households for more details). Although ACLEDA was first established in Mondulkiri and Ratanakiri, it was AMK that played a key role in introducing MFI/bank loans to Bunong households in the Keo Seima district. The WCS survey conducted in 2012 showed that out of 14 loans from ACLEDA, only one loan was held by a Bunong household, with the rest held by Khmer households. In contrast, 34 loans from AMK were mainly held by Bunong households.

In addition, it was with AMK that most of the early borrowers among my participants had their first loans (this finding is consistent with what was found in Preah Vihear-see de Lange 2022). Early borrowers in my study villages refer to those who started borrowing from MFIs/banks at least in the last five years, counting from the time this research was conducted, which was the end of 2022. Of the 8 early borrowers who could recall the year they first borrowed from an MFI/bank, 5 borrowed from AMK, one from ACLEDA, one from Prasac, and one from Sathapana. One participant says that the first loan she applied for at AMK was for USD 1.50 (the amount that could be borrowed was between USD 1.50 and USD 1000). According to her vague memory, this loan was taken out in either 2006 or 2010. She says: "Since they lent us 6000 riels (about 1.50 USD), I think I have borrowed from them 10 times. Before that, I only borrowed from AMK and Prasac came later". With sincere curiosity, I asked, "What did you use the 6000 riels for?" She replied, "I used it to buy salt and bicheng (monosodium glutamate) [laughing]. At first, they lent us a very small amount, but after we got to know each other's hearts (skool chet in Kh.), they lent us more." Such miniscule loans provide an avenue for Bunong households to experience formal credit and creditworthiness. To date, this informant has borrowed a total of USD 4000 from two MFIs. Based on my fieldwork in Ratanakiri, some Kreung and Tampuan households started their loans with AMK around 2014 with USD 40 or USD 50. The same borrowers now owe between USD 10,000 and USD 40,000 to other MFIs, mainly Prasac. As shown in the WCS household survey series and in my data, Prasac is a later MFI player that tends to offer much larger loans than AMK.

To date, AMK continues to provide smaller loan sizes, mainly in the form of group loans, than other large MFIs in Cambodia (see Appendix 1 for details on loan size and number of loans

with AMK; see also Appendix 2 for total outstanding loans in relation to number of borrowers). This small group loan allows some landless households to access consumer goods (e.g., motorcycles), while it could also be used to repay their existing MFI/bank debts. The practice of taking out group loans to repay existing individual loans was observed in Ratanakiri, but not yet in Mondulkiri. Note that borrowing from formal or informal lenders to repay existing debts is observed in other sites studied in Cambodia (Brickell et al. 2022; Bliss 2022; Green Chhom and Estes 2023) and was common during the COVID-19 crisis (Res 2021a). Such practices could lead to debt burden and debt bondage rather than debt relief in the medium and long term, and sometimes even in the short term. Given that a short term is about a few months.

6. DEBT DEPENDENCY

In the previous section, I discussed how Bunong households in Srae Lvi and Kati village have recently used MFI/bank loans. I have shown that AMK (current median loan size provided = US\$1000) was an early MFI player in introducing microfinance to Bunong households, while Prasac was a later player offering larger loan sizes (current median loan size provided = US\$1750) to Bunong households, including those whose land is within the Indigenous Communal Land Title (ICLT). In this section, I demonstrate the increasing trend of microfinance use within the Keo Seima Wildlife Sanctuary (KSWS). Using the case studies of Srae Lvi and Kati, I provide an in-depth analysis of how the loan was used, structured, and repaid.

6.1 Increasing reliance on Microfinance

According to a series of WCS household surveys (N= 622 in 2012, N= 620 in 2017, N= 890 in 2022) conducted in 20 villages of KSWS, household indebtedness to MFIs/banks was 8.4% in 2012, rising to 29.8% in 2017 and 47.8% in 2022. The average loan size increased from \$357.82 in 2012 to \$1642.74 in 2017 and to \$3656 in 2022. This data also showed that the number of households with MFI/bank debt in Srae Lvi and Kati was 33 percent and 3 percent, respectively, in 2017. These figures increased to 59 percent and 38 percent, respectively, in 2022. Similarly, my data show that at the end of 2022, the number of households with MFI/bank debt in Srae Lvi and Kati was 65% and 41% respectively (see Table 1). Based on the WCS data and my data, the number of households with MFI/bank debt in Srae Lvi and Kati has increased dramatically in just five years.

Table 1: Livelihoods and Indebtedness Among Interviewed Households in Srae Lvi and Kati

Village	Total Households*	Total Interviewees	Rice Growers	Cashew Growers	Cassava Growers	All Types of Debt	MFI/Bank Debt
Srae Lvi	53	34	24	31	32	24 (~71%)	22 (~65%)
Kati	86	49	27	44	38	23 (~47%)	20 (~41%)

^{*}Total households were obtained from administrative village chiefs in 2022

Although statistics show a dramatic increase in the number of households with MFI/bank debt over the last five years, the median loan size of households in Srae Lvi (1750 USD) and Kati (1000 USD) (see Table 2) is lower than the national average and lower than my study sites in Ratanakiri and other lowland provinces (Res 2021b). For example, the national average loan size in rural Cambodia in 2021 was about US\$4583.5 (National Institute of Statistics 2022). Res (2021b) conducted qualitative research in Battambang, Siem Reap, Kompong Chhan, and Phnom Penh (n=119 MFI/bank borrowers) and found that the mean loan size was US\$6784, while the median was US\$4000. In addition, Brickell (et al 2022:10) find that the average loan size for women workers (mostly in the garment industry) was US\$4731, more than double the annual basic wage in the garment industry.

Table 2: Mean and Median Loan Size (USD): MFI/Banks vs.Informal Providers

Village	Mean USD – all*	Median USD	Mean USD - MFI/banks	Median USD - MFI/banks	Mean - USD informal**
Srae Lvi	2125	1750	2289.77	1750	312
Kati	3282.95	1000	3550	1000	235
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^{*}Includes loan from MFI/banks and informal providers

This is not to say that the increasing reliance on microfinance in Srae Lvi and Kati is not worrying. When we zoom in to understand the debt situation in detail, it appears that most Bunong borrowers in Srae Lvi have only started using the loan service in the last three to four years, while many informants in Kati have just started borrowing for the first time (see Table 3).

^{**2} informal loans in Srae Lvi, 7 in Kati

Table 3: Number of Households with MFI/bank Debt Per Loan Cycle

Village] st	2 nd	3 rd	4 th and more	Not identified
Srae Lvi	2	3	8	6	3
Kati	13	4	1	1	1

A closer look allows us to gain some insights into the evolution of credit use. From cycle to cycle, the amount of credit has increased. In some cases, the increase has been double. Such an increasing trend in the amount of credit raises some doubts and concerns among my participants. For example, a 24-year-old woman, mother of one son, originally from Kati but moved to live with her husband in Srae Lvi, has borrowed money from Prasac in the last four years. The first cycle of the loan was 1 million riels (US\$ 250) taken in 2019; the second was 2 million (US\$500) in 2020, and the third was 3 million (US\$750) in 2021. The fourth cycle was 6 million riels (US\$1500), taken at the start of the rainy season in 2022. She says: "I think a lot to make sure we have the money to pay back. Peat (medical professionals) told me not to think a lot. I cannot think a lot because I am indebted".

Some participants see this growing trend as an addiction (chók or nhaam in Kh.). It is interesting to note that in Khmer, the word *chók* mainly refers to addiction to substances such as cigarettes and drugs, while the word *nhaam* mainly refers to addiction to food. In this sense, *chók* has a more negative connotation than *nhaam*. However, both imply negative consequences of the action. A 30-year-old woman, mother of a daughter, living in O Rona, who holds a second cycle loan of USD 2,000 with Prasac, describes her act of borrowing and reborrowing money from an MFI as an addiction to borrowing (chók khchei in Kh.). Another participant living in Srae Preah, who has been using the loan service for the past six years, was asked about the amount of her first loan. She says, "[It was] 300 USD... since I got married, so it was about six years ago. I am addicted (chók tov chók tov, in Kh.) to taking more loans". I asked why you are chók tov chók tov (addicted to borrowing). She replies: "I need money; we want to buy a motorbike, we want to buy this and that, so we keep on borrowing." A 39-year-old widow and mother of four children, living in Srae Lvi, is on her third loan cycle with Prasac for 8 million riels (around USD 2,000). She says, "I trembled when I gave my thumbprint for my first loan [3 million riels]. But a few years later, I am addicted (*nhaam* in Kh.), I borrow again, and for my third cycle, oh mother [oh gosh], it has increased to thousands of USD [2000 USD] [laughing]." Concerns about increasing debt dependency for agricultural production and social reproduction are shared not only by my participants in Keo Seima but also by microfinance borrowers across Cambodia (LICADHO and Sahmakum Teang Tnaut 2019; LICADHO 2020a; LICADHO 2020b; Res 2021a; Green & Bylander 2021; Bliss 2022; Brickell et al. 2022; Iskander et al. 2022; Guermond 2022; Bylander 2015).

In the Keo Seima district, microfinance was mainly used to finance agricultural production and social reproduction. Statistically, the WCS household survey (N=890, conducted in 2022) showed that 27.5% of respondents reported using the loan for agricultural inputs, 22.8% for food or goods, 27.8% for construction materials, 17.1% for health care, and 5.1% to repay existing debts. Similarly, my data showed that 59 out of 107 respondents who reported borrowing from microfinance institutions (MFIs) or banks all said they used some of the borrowed money to buy food, petrol, herbicide, and to keep for emergencies. Several reported using the loan to finance house construction, weddings, funerals or to pay hospital bills. A few respondents reported using some of the borrowed money to repay existing MFI/bank debt. To understand how microfinance is used in detail, the following three cases illustrate how debt has become central to villagers' agricultural production and social reproduction.

Nheut has five daughters and one son. Four of her children are married. She complains that she is the only one who earns money because her husband is often drunk. One of her daughters committed suicide because she was angry at Nheut for taking her drunken husband back to live with the family. This violent death cost Nheut financially and psychologically. She is currently indebted to two MFIs: USD 3000 from Prasac and USD 1000 from AMK. She started borrowing from MFIs and banks much earlier than her fellow villagers. She said that her current loan from AMK was already in its 4th or 5th cycle. When I asked for details, I learned that she had borrowed from AMK about 8 times. I asked how much the first loan was. She laughed and said that the first loan from AMK was 6000 riels (1.50 USD). I confirmed, "6000 riels?" She laughed and said, "Yes, [the loan was] between 6000 Riel and 1000 USD." She is an old client of AMK, and recently, she decided to borrow an additional 3000 USD from Prasac. I did not investigate further why she chose to take a larger loan from Prasac rather than a larger loan from AMK. However, looking at the general trend, Prasac seems to offer larger loan sizes than AMK. To date, Prasac is the largest MFI in Cambodia with the largest microfinance loan portfolio (see Appendix 2). According to the annual reports of Prasac and AMK published in 2022, Prasac held a total loan portfolio of USD 4.23 billion with a total of 502,000 customers (Prasac 2022:9), while AMK held a total loan portfolio of USD 0.552 billion with a total of 865,576 customers (AMK 2022: PO4). The main purpose of the loan she took from Prasac was to finance her son's wedding. I observed that although she bought food on credit (cheu in Kh.), she made sure that she had enough money to repay the loan. When asked if she has any difficulties in repaying her debts, she replies, "No, I always manage to repay. I have never been scolded by them (MFI/bank officials); besides they admire me for always paying on time."

From my observation, Nheut seems to be struggling to repay the loan as a single earner with an outstanding loan of USD 4000. But Nheut still thinks she can repay. My question is, at what point would borrowers share that they could not repay? Perhaps it could be that, at some point, such subjective feelings of hardship are difficult to describe in words and can only be felt and observed (Mahanty Chan and Suong, 2023).

The second case is Hiap. Hiap is a 50-year-old widow with six daughters. Four of her daughters are married and have built small huts around Hiap's house. This spatial arrangement reflects the matrilocal practices of the Bunong custom. Her husband died six years ago of liver infection or cancer (bauh them in Khmer), and it cost the family US\$5,000 to treat him. She borrowed US\$2,000 from her younger sister and US\$3,000 from savings. Since her husband's death, she has used MFI/bank loans to buy food and finance her farming activities. When asked what she had borrowed, Hiap says: "To buy rice, to buy thnam (chemical products), to hire people to spray the herbicide in my cashew field because I cannot spray it myself. For example, the cost of two cases of herbicide is already close to 1 million riels." At the time of the interviews, Hiap had three loans totaling USD 5500 (13 million from Prasac, 6 million from AMK, and 3 million riels from Woori Bank). She said that if her husband were still alive, she would not been heavily indebted to several angkars (MFI/banks) as the couple could go out to collect resin. She explains: "Since my husband died, I have been taking loans for six years. I have always used credit... when my husband was alive, we did not need to borrow because we went to collect resin." She could not take her daughters to collect resin because she was afraid of the loggers, whom she called drug addicts, and the animals, especially wild elephants, and tigers. When I asked her why she did not ask her sons-in-law to join her, she said they were not interested in collecting resin because it was considered as hard work with little money. After inquiring about the amount of her loan from cycle to cycle, I remark: "The amount of your loan increases a little every year." Hiap replies, "Yes because I have to pay back the interest (luy kaa in Kh.) and the principal (luy deourm in Kh.) [of the loan]. After I repay, I reborrow. If I do not reborrow, I will not be able to maintain my agricultural field (chamkar in Kh.)." As the agricultural field does not produce enough income to repay the loan (interest plus principal) and feed her family, Hiap needs to borrow additional amounts to repay existing debts, buy food, and finance agricultural activities.

Nheut borrowed to pay for her son's wedding, Hiap borrowed to buy food and to finance agricultural activities. I now turn to Thaan, Nheut's son-in-law, who borrowed mainly for agricultural production. Thaan is a 25-year-old young Khmer man, married to a Srae Lvi woman. They have a four-year-old son together. Thaan appeared to be fluent in Bunong and communicated with his wife and young son in Bunong. Thaan said that he learned to speak Bunong from a good friend in O Rang. Thaan learned to speak Bunong from his good friend, who identified himself as Bu Biat (a Bunong sub-group). Thaan confessed that he found it difficult to understand the Bunong spoken in Srae Lvi because the villagers had integrated the Rohong dialect (another Bunong sub-group). Thaan cultivated two hectares of cassava. He used herbicides intensively to control the grass. At the time of the interview, in the middle of a growing

cycle, he had already used two cases of herbicide (one case costs about 480,000 riels - US\$120). Than said he would need to spray a few more times before harvest, which could require at least another case of herbicide. Than had three MFI loans: 8 million riels with Prasac, 6 million riels with AMK, and 8 million riels with LOLC. The loans from Prasac and AMK are the second cycle, while LOLC was his first cycle of borrowing. When asked what the loans were for, he said they were to buy herbicide, petrol, and a grass-cutting machine.

To pay these debts and put food on the table, Thaan jugales between irregular daily wages, tending his cassava and cashew fields, and occasionally cutting wood. When asked what kind of si chhnoul (wage work) he might have. Thaan describes: "I am hired to spray the grass or cut the grass in the field. Sometimes it [the work] is in O Rang [another district] ... far or near, I must go to earn some money [laughing]." He continues, "Sometimes I am also hired to grow banana plants. We must find banana plants, transport them to the field, and grow them... they pay 8,000 riels (about 2 USD) per banana plant. I usually buy a baby banana plant at the price of 2,000 or 3,000 riels per plant, including the cost of transportation to bring these baby banana plants to the field, I make a very small profit." In addition to this wage work, he occasionally goes into the forest to collect the medicinal mushroom, known in Khmer as pset poh vek, and occasionally to cut wood. As Thaan says, "Sometimes I cut wood (tvor chheu in Kh.), since the ngam is closed, I also stop". I asked what ngam was. Thaan described the ngam as a place where wood is sold by cubic meter. To convert a piece of wood into a cubic metre, first, a piece of wood is weighed, then its length (proveng in Khmer) and width (mok in Khmer) are measured. Unfortunately, I did not ask where this ngam is, or why and when this ngam was closed. However, Thaan says that his family has not had much income since this ngam was closed.

The ways in which loans were used in the case of Nheut, Hiap, and Thaan are not unique. At the national level, the 2021 National Socio-Economic Survey showed that in rural areas, 20.4 percent of loans were used for agricultural activities, 19.7 percent for household consumption needs, 16.5 percent for the purchase or improvement of dwellings, 13.4 percent for the purchase of consumer durables, 5.6 percent for payment of services and existing debts and 2 percent for ritual activities (National Institute of Statistics 2022). A 2015 survey of 411 households in nine provinces in Cambodia found that between 50% and 60% of households surveyed used loans for unproductive purposes (Chorn 2020). In a quantitative survey of 203 women workers, Brickell et al. (2022:10) found that 23% of loans were mainly for the purchase of motorcycles, 22% for daily living, and 16% for health care. In the case of Srae Lvi and Kati, villagers borrowed partly to finance their agricultural activities (herbicides and petrol) and to buy food (e.g., in the case of Thaan and Hiap), while some used the loan for ceremonial events

such as weddings and funerals (in the case of Nheut) and partly to repay existing debts (in the case of Hiap).

6.3 Loan Structure and Debt Repayment

I will now explain the loan structure in terms of the loan term, when the loan is taken out, and when it is repaid. In Srae Lvi and Kati, the loan term is usually 12 months. A loan is usually taken out at the beginning or middle of the growing season (rainy season), which begins in May. The loan is repaid during the harvest season. Depending on the amount of the loan, the borrower may ask to repay the loan in one or two installments. In the case of two repayments, the first repayment is made during the cassava harvest in January or February, and the second repayment is made during the cashew nut collection in March or April. The interest is usually repaid in advance up to the time of harvest (cassava or cashew). This means that between 5 and 10 months of interest is paid in advance. For example, a 23-year-old resident of Kati said she took 2 million riels (first loan) from Prasac in August 2022. She paid the interest five months in advance. In the end, she has 1.75 million riels left to use. A 27-year-old woman living in Kati borrowed 4 million riels from Prasac in early September 2022; she paid 1 million riels for interest in advance and deducted some capital. In her case, she has 3 million riels to use. The next repayment is due in February of the following year. She plans to pay off the rest of her debt with the money from the cassava harvest or with cashews if the money from the cassava harvest is not enough. According to this statement, the debt will be repaid in less than a year (from September to the end of February). Voun is 24 years old and held 6 million riels (4th cycle) debt from Prasac; this loan was taken in July 2022. In her case, Prasac asked her to repay the first installment of 3 million riels in February and the rest in April of the following year. Voun says: "I am paying back the principal (luy deurm in Kh.) twice, but I have already paid the interest for a year in advance. For the loan of 6 million riels, it cost 1.19 million riels [interest in advance for 12 months plus other fees]". In Voun's case, if things go as planned, the actual repayment takes less than 12 months, although she would have paid the interest for 12 months.

However, not everyone is compatible with this 12-month cycle of the loan term. Savy is a Bunong from a village not far from Mondulkiri's capital, but due to a lack of land in her home village, she followed her husband to live in Srae Lvi in 2011 after they got married. She says: "When I was 21, I got a husband, then I followed him to live here because the land in Khet (Sen Monorum) is small. There is no agricultural land there. So, I decided to follow my husband here, we have some agricultural land to grow cassava, cashew, and rice. I have been here for

more than ten years. I came to live here in 2011." Savy shared that her first loan with AMK was 1 million riels, which was taken in 2016. The second loan with AMK was 2 million riels, and the third loan cycle with AMK was 6 million riels. The loan term with AMK is 2 years. Savy took the first loan with Prasac with the amount of 1.5 million in 2018, 3 million for the 2nd cycle of the loan, 4 million for the 3rd cycle of the loan, 6 million riels for 4th cycle, and 8 million riels for the 5th cycle of the loan. The loan term with Prasac is one year. She shared that AMK allowed her to decide on the loan term but not Prasac. She finds it difficult to repay the 8 million riels (US\$ 2000) loan she took out from Prasac in one year. To illustrate, Savy shares her frustration: "I asked for two years, but they [Prasac] said no. They said next year I can borrow up to 12 million riels (US\$3000). Then I want to borrow for two years, but they say no. It is quite difficult. With AMK, it is a bit easier because they allow a two-year loan. In that case, I can use some money to invest in the farm and keep some to pay back. 8 million [riels] for one year is quite difficult for me."

As the cases above illustrate, new loans are taken out during the growing season (usually the beginning of the rainy season) and repaid during the harvesting season (dry season). Some borrowed money is used to repay the interest or part of the capital in advance. Some is set aside for food and emergencies such as illness or personal accidents. Advance repayment is not required by the MFI/bank. However, my participants consistently tell me that it is difficult to earn during the rainy season because there are fewer opportunities and the roads are very difficult to travel on. Muddy and slippery roads up and down the mountain made it difficult for borrowers to commute to find work outside the village and make repayments. So, all my participants pay the interest or part of the capital upfront, at least until the rainy season is over.

PHOTO 11: A ROAD FROM KATI TO SRAE PREAH ON THE LEFT, AND MY ASSISTANT PUDDLES THROUGH A MUDDY ROAD ON THE RIGHT.





7. Implications of debt on land and conservation

This section highlights the practice of borrowing and lending within Indigenous Communal Land Titling (ICLT) in Mondulkiri and Ratanakiri and how this can undermine the process of ICLT, particularly for those who are still in the final stages of obtaining their ICLT certificate. I then discuss how land grabbing and encroachment on reserved forest land and the privatization of health care also contribute to undermining the collective form of land tenure. Finally, I examine how microfinance debt is driving deforestation in the Keo Seima Wildlife Sanctuary.

7.1 Debt, collaterals, and Indigenous communal land titles

Kati, Srae Lvi, and O Rona are in the Keo Seima Wildlife Sanctuary's community zones, and land management is governed by Indigenous Communal Land Titling (ICLT). With the issuance of Order 01 in 2012, it is documented that many Bunong households in O Rona opted for individual hard titles in exchange for the opportunity to use the titles as collateral for MFI/bank loans (Milne 2013). However, my participants who live in O Rona all claim that their land is within the ICLT. For households whose land is within the ICLT, this means that individual land titles cannot be issued, a piece of land within the communal land title boundary are not supposed to be used as collateral, and land cannot be sold to outsiders. Based on my interviews, there seem to be different perceptions among borrowers as to whether a piece of land within the ICLT can be used as collateral. Among those who have individual loans, when asked whether their loans are secured, some believe that their loan is secured, while others do not. However, all interviewees mentioned that loan officers came to take photographs of houses and fields. Such activities were interpreted by some as a way of measuring a piece of land to be used as collateral, while others argued otherwise. For example, Pon, a 39-year-old widow living in Srae Lvi, whose husband died in 2017. She has 4 children (two sons and two daughters). One daughter recently married and still lives with Pon. She currently owes 2000 USD to Prasac. This loan was her third cycle of borrowing, taken in 2022, while the first cycle of borrowing was also with Prasac, taken in 2020, for 3 million riels (about USD 750). When asked, if she was required to provide any land as collateral for the current loan (2000 USD).

Pon: Yes, I put a collateral, they came to see our land.

Village assistant: How is that possible because we have communal land (*dei sahakum* in Kh.)?

Pon: They made it [a land title], they came to jot the GPS [using the English word] themselves. They came with me to see my land.

Pon's niece: It is a soft title (plaang ton in Kh.) not a hard title (plaang reung in Kh.).

Pon: Right, it is a soft title. If you do not pay back, they will take your land.

Pon's niece: Right, they will take all your land, but they will not take it immediately. They give you some time. For example, if you cannot pay back this year, they will ask you to pay back next year, and if you still cannot pay back, they will take your land for sure. If you do not have a land title to put up as collateral, who will give you millions [riels] like that [she remarked rhetorically]. If you cannot repay, their money will disappear, so they need your land in exchange.

In another example, a 59-year-old woman living in Kati was angry with her daughter and son-in-law for using her land and house as collateral for a loan from Prasac without informing her. She accused the loan officer of colluding with her daughter and son-in-law. At the time of the interview, she was worried that the MFI would confiscate her house and land if her daughter and son-in-law could not repay the loan. In addition, a 48-year-old woman living in O Rona who is currently indebted to Prasac for USD 1000 (3rd cycle) shares her concerns: "I am a bit worried that I will not have the money to pay them back. I told my nephew (a Bunong loan officer) to give me March for the interest payment, but he gave me December. I am afraid that if I cannot pay them back, they will confiscate my land. But my land is inside the ICLT (*dei sahakum* in Kh.), so I wonder how they will confiscate it." I ask, since your land is within the ICLT, why are you afraid that your land will be confiscated? She continues, "I am afraid because otherwise, they could put me in jail. Even if I want to leave the *sahakum* (community), we cannot because the ICLT leader will not let me."

In contrast, other participants understood the activity of loan officers visiting and photographing their agricultural fields and houses as a way of proving their ability to repay, rather than to be put as collateral. For example, a 24-year-old woman living in Srae Lvi, who owns 6 million riels (4th cycle) with Prasac, said, "Not really, we have a collective title (*plaang ruam* in Khmer)." She continues, "The first time we borrow the money, they come to see our fields and houses. But after the second and third time, they stop asking to see [the fields]". To which my village assistant adds, "The *angkar* (MFI/banks) want to see where we are farming, just for the

documents. That is why they visit the fields. They cannot take the land because we have collective titles, they cannot sell it. However, if the borrowers could not or would not repay, the land can be sold to members of the community". In addition, a 34-year-old woman living in Srae Lvi has two loans - 4 million riels (3rd loan cycle) from AMK and 8 million riels (5th loan cycle) from Prasac. When asked if she needed to provide collateral for each of these individual loans, she said: "No, they do not ask us for collateral. They just asked me how many hectares of cashew fields I have, then they wrote it down and took a picture of my house." The above examples illustrate that although there are different understandings of whether a piece of land within the ICLT can be used as collateral, there seems to be a consistent understanding that MFIs/banks could and would sell a piece of land to repay the debt if borrowers were unable to repay.

7.2 Proxy Borrowing

In this section, I present three case studies that illustrate the complexity of borrowing practices that allow residents within the ICLT to access larger loans than they thought they could. I refer to these practices as proxy borrowing. In this context, proxy borrowing refers to borrowing practices in which borrowers rely on social relations and arrangements outside the ICLT boundary to access larger loans, either by using land titles outside the ICLT as collateral or by borrowing under the names of relatives. Proxy borrowing is also practiced in the lowland provinces, where a piece of land is individually owned but in a slightly different form. However, note that it always revolves around land ownership. For example, Res (2021a:79) asserts, "Proxy borrowing can take many forms; in our data, it was most common for parents to have taken out loans on behalf of their adult children. The practice is related to the dynamics of formal land ownership. Since microloan is more and more moving toward land collateralized, parents need to borrow on behalf of their adult children because land titles are often in the name of parents and not their adult children."

Yiam is a 40-year-old woman with three children who resides in Kati. At the time of the interview, she said she owed USD 20,000 to a large MFI. Yiam relied mainly on her husband's salary from the army to repay the debt. Meanwhile, she supported the family's daily needs through a grocery shop and cashew and cassava harvests. To secure a USD 20,000 MFI loan, Yiam used 4 hectares of individually titled land in Srae Preah, which she had bought from her mother. Her mother received a hard title for this piece of land under Order 01 in 2012 (for a detailed description of the land titling process under Order 01, see Biddulph and Williams 2017; Beban

2021). At the end of the interview, Yiam complained that it was too tiring to repay the debts and manage so many plots of land. Yiam says, "What is the point of having many pieces of land because it is very tiring (chang dach khchol in Kh.)". She continues, "I do not understand why we borrowed to buy this piece of land; I feel it [the debt] up to our neck. Every month we could not spend any of my husband's salary. It all goes to pay off the debt. I could not imagine how difficult it would have been without that salary." She felt that it was difficult to manage the debt and the cashew fields alone, as her husband was always away on a military base. She wanted to sell these newly purchased 4 hectares of land, which she had used as collateral with the MFI/bank, for a price of US\$75,000. She said she could use some of the money to pay off the rest of her debts and much of the rest to buy a car. Yiam says: "I want to have more fun (sabay in Kh.) as a husband and wife." Yiam spoke to the MFI staff, and they agreed to facilitate the transfer of this collateralized piece of land to the buyer. However, she was disappointed that her husband rejected her idea as she said, "I was so happy when my husband first agreed to sell this piece of land, but later he changed his mind". I did not ask why her husband changed his mind, but her younger sibling also discouraged her from selling this piece of land. Her younger brother told her that her family was not desperate yet. Yiam says, "The buyer gave me 300 [USD] per meter, but my younger sibling said to wait until we are in a desperate situation (to/in Kh.)." She also wants to sell a piece of land within ICLT, but buyers were reluctant to buy this piece of land. Yiam reveals, "I really want to sell my piece of land next to the burial ground, but no one dares to buy this piece; they said it is dei sahakum (ICLT), and it is too close to dei aphireak (the protected area)."

The second case was Lyn, a 40-year-old Khmer woman with four children, originally from Kampot. But since 2003, she and her husband have followed her older sister to live in Kati. Currently, Lyn's family owes \$16,000 to one of the largest banks operating in rural areas. To secure this loan, Lyn has pledged her parents' and in-laws' house and land title in Kampot as collateral. The loan is for 6 years, and she has paid it back for three years. Each month, she pays back about 1.4 million riels (interest plus principal). During the rainy season, it is difficult for Lyn's family to meet this amount of debt obligation, as she says, "During the rainy season, especially in July, August, September, and October, I am stretched (*teung* in Kh.), I have to borrow from the east and from the west [to meet the debt obligation]". Although Lyn's livelihood activities are mainly in Kati, she has never borrowed in Kati but has always borrowed in Kampot. She believed she was not allowed to borrow much because there were no land titles in Kati that could be used as collateral. As she says, "I cannot borrow much here; I have to borrow in my hometown because there are no titles (*plaang* in Kh.) to give as collateral". Although the loan was borrowed in Kampot province, it was used to finance her farming activities and catering business in the Keo Seima district.

In the third case, Pyeun is a 27-year-old woman with two daughters. Pyeun is from Kati while her husband is a Bunong from O Rang district. Pyeun relied on her mother-in-law to take out a loan on behalf of her in the O Rang district with the individual title as collateral. The total amount of the loan was \$10,000. The loan was divided between Pyeun (USD 3000), her husband's elder sister (USD 5000), and her younger sister (USD 2000). The term of the loan is three years, and there are two years left for repayment. This USD 3000 MFI loan was contributed to buy a used truck that cost USD 7000 (one of the five villagers who owe a truck). To pay for the rest, she sold a cow, borrowed USD 2,000 interest-free from her mother-in-law, and used her savings from the cashew fields. Pyeun says: "There are 5 (trucks) in total. We bought them last year, but if there were more trucks, the villagers would have started planting cassava long ago. Because it was difficult to transport the cassava tubers, we have only been planting cassava for the past three years. As for my case, when I first planted cassava, I begged (angvor in Kh.) the owner of the truck to come to my field to transport the cassava tubers. They only showed up after dark. Since it was difficult to rent a truck, we decided to borrow the money from angkar to buy one." This truck would be used to transport cassava tubers for herself and other villagers who wanted to rent it. The cost of this truck service ranges from 40,000 to 60,000 riels (about 10 to 15 USD) per ton of fresh cassava tubers, depending on the distance and road conditions to the fields. In Pyeun's case, she could have borrowed US\$3000 directly from the MFI/bank. I did not ask her why she chose not to borrow directly from the angkar (MFI/bank). Nevertheless, her case provides some insight into the practice of borrowing on behalf of others, which I have identified as a form of proxy borrowing.

The cases of Yiam, Lyn, and Pyeun illustrate borrowing and lending practices that are not confined to a fixed space as ICLT policymakers have imagined households to be. These cases also illustrate the rigid boundary of the ICLT, which does not capture the social relations and social arrangements that exist outside such a boundary. Those who live inside the ICLT boundary can still use kinship social relations to secure loans of a much larger size than they thought they could get with ICLT. Based on a conversation with a Bunong loan officer during my fieldwork in Srae Lvi, I was told that the loan provided would not exceed USD 3,000 for those who have an ICLT. So far, apart from three households in Kati (two highlighted above), none of my informants in Kati and Srae Lvi have a loan with an MFI/bank that exceeds USD 3,000. Of the two cases highlighted above where the loan exceeded USD 3,000, another family with a loan of USD 10,000 claimed that, in their case, it was irrelevant to provide land titles as collateral because (the wife's) salary as a primary school teacher allowed the family to borrow this amount. Another way in which borrowers could circumvent this loan size limit (USD 3,000) is through the practice of multiple borrowing. Among the interviewed households in Kati and Srae Lvi, 6 households in Srae Lvi have at least two MFI/bank loans, while only 5 households

have multiple loans exceeding the USD 3,000 limit (see Table 4). Of these 5 households, one is a Khmer household who claims that her family has used land outside Srae Lvi as collateral. When asked if she had to put land titles as collateral for an individual loan of USD 4000 from Prasac and an individual loan of USD 7 million from Amret. She says: "I put the land titles outside the communal land title. But for those who want to use the piece of land inside the communal land, they can ask for a piece of paper from the village chief and the head of the community".

Table 4: Multiple Borrowings of Interviewed Households

Village	Indebted households	MFI/bank loans	Informal loans	MFI/banks + informal	At least 2 loans MFI/banks	At least 3 loans MFI/banks
Srae Lvi	24	22	2	0	6	3
Kati	23	20	3	3	0	0

7.3 ICLT amid financialization, privatization, and individualization

In Keo Seima it appears that \$3000 is the maximum amount given to households within the ICLT, and the villagers of Srae Lvi and Kati seem to be aware of such limits. However, this practice is not implemented in all ICLT communities. Based on my fieldwork in Ratanakari, villagers were not aware of any limits, and MFIs/banks do not seem to have any limits, as it was found that large MFIs and banks have given loans to households within the ICLT of more than USD 3,000. To secure larger loans, local authorities issued soft titles overlapping with the ICLT as collaterals. The average loan size of two Indigenous community ICLT holders in Ratanakiri ranged from USD 4,605.77 (Jarai village) to USD 5,090.42 (Kreung village). In one case, a large MFI allowed a household to secure a loan of USD 40,000 by pledging six hectares of land within the ICLT as collateral. Lending without setting a limit within the ICLT has undermined the ICLT process and led some Indigenous communities in Ratanakiri who were in the final stages of obtaining their ICLT certificates to request the dissolution of the ICLT (see also Baird 2023). In one of my study sites in Ratanakiri, the head of the ICLT committee and the village chief jointly reported that about 37 hectares of land within the ICLT had been secretly sold to non-community members, mainly to pay off debts. In addition, 20 households in this ICLT community had sold a piece of land to community members to meet debt repayment obligations. In Ratanakiri, the situation is complicated by the fact that there have never been loan size limits, and when such discourses about loan size limits arise, households either demand that the ICLT be dissolved or that they leave the ICLT. One must be careful, however, not to over-essentialize

such dissolutions as solely due to financial-driven agrarian change. As I learned from participants in Mondulkiri, the act of land grabbing and encroachment on reserved forest land inside the ICLT and the privatization of health care also contribute to undermining the collective form of land tenure, in this case, Indigenous Communal Land Titling (ICLT), known in Khmer as dei sahakum (kaneh or neh ruam in various Bunong dialects).

I begin with the case of land encroachment in O Rona. I will show how the act of land grabbing undermines the logic of collective forms of land tenure and the essence of the ICLT. In O Rona, the encroachment on the forest reserved inside the ICLT began around 2011. By 2015, the land was intensively cleared. The case against these land grabbers has been brought to the Mondulkiri court since the beginning of the conflict. However, there is no result, and the villagers believe that these grabbers have a case (political connection. See also Beban 2021). A 36year-old man says: "Since 2011 or 2012 [the land grabbing began], I think around 2015, the forest was already cleared. We have been trying to stop them from clearing the forest since 2011. They [NGO lawyers] have been coming since then to solve the case, but so far there is no result". He continues, "They [the land grabbers] are not members, but they are powerful people. Whenever we did the patrolling, they said they were not afraid of a powerless sahakum (community) like us. Since even the top lawyer could not do anything, what could we expect from these small sahakum people. When they say that, we are discouraged from fighting against them. It is true that we are small people (kompek kompok in Khmer), and we cannot really do anything. Even lawyers are not able to solve the case for us. They move from one NGO to another, and the case remains unsolved. Now, this piece of grabbed land is covered with different crops like kro nhaung (dalbergia cochinchinensis), beng (Afzelia xylocarpa), rubber, and cashew."

The ICLT is supposed to secure land for the current community members and future users. I met with a newly married woman, 23 years old, a few months pregnant, who lives in O Rona with her widowed mother and other siblings in a small hut that seems to fall apart at the touch of a strong wind. I asked, as a newly married couple, if she had been given a piece of land to farm. She said: "No, nothing... the thing is, all the reserved land has already been taken by the Khmer people. I heard that they (the community) cannot reclaim it yet." She continues, "We would not mind so much if *chun chiat* (referring to Bunongs in this case) took this piece of land. But the thing is, it is Khmer outsiders who have taken this land. By the time we realize, they have already taken all the land." Besides this 23-year-old woman, a 40-year-old woman with 4 children, when asked why she decided to join the ICLT, says: "I did not know before. I was told that if we join *sahakum* (ICLT), we will be able to further expand our agricultural field. When the community is formed, there is no more reserved forest land to be cleared. All [reserved land]

is gone." I confirmed, is it all gone? She confirms again, "Yes, it is all gone." She continues, "It has not been distributed to any member of the community... it is gone because the land is being cleared by people from the lowlands." The above examples suggest that the act of encroaching on reserved forest land intended for future users has undermined the logic or essence of the ICLT, as community members have found that the promise of expanding agricultural fields has not been fulfilled and newly married couples have no land on which to farm.

The fact that efforts to reclaim this encroached land were unsuccessful may have undermined the villagers' confidence in the ICLT committee, the local authority, and conservation groups to protect the reserved land for future users. As a result, although the land is collectively owned, community members take control by trying to individually own as many plots as they can. This creates a tendency to clear land now before it is all gone. Some households have cleared land beyond the ICLT limit of five hectares per family. This is because the cleared agricultural land is not only for their subsistence now but also for their children (future users). To illustrate, speaking in Bunong, when a husband shares that his family owns about 7 hectares, his wife scolded him and turned to my assistant and said: "We have about 3 or 4 hectares." So, I jokingly ask: "Why are you afraid to tell me that you have more land than you have?" My village assistant jokingly adds: "They are afraid they will not be allowed to clear more land for farming [laughing]." The wife replies: "They only allow us to clear five hectares (including crops and fallow fields) of land per family, when our children grow up, they would not have much land to farm... they would not have enough to eat." I asked if they had raised these concerns directly with the ICLT committee or the conservation groups. The husband adds: "Being able to own 5 hectares is already the result of a negotiation. Before, they wanted us to farm in the traditional way, which is swidden farming (chamkar vil chum in Kh.). They do not want us to have a big farm or a big house. They want us to live in a traditional house and farm traditionally. They want us to be a traditional Bunong (chun chiet deum Bunong in Khmer) like we used to live traditionally." I asked further, and they said all this during the meetings. The husband replied, "They said all this during the meetings before the community (ICLT) was formed."

He continues, "We have no choice, we were told that if we are not part of the community (chol sahakum in Kh.), we will not be allowed to expand more agricultural land." I asked if a newly married couple could apply for a piece of land to farm. The husband replied, "A request can be made to the village authority, then the village authority can request from the conservation [groups] (aphireak in Kh.)." I do not ask directly whether they think this is an effective way of distributing a piece of land to future users. However, based on the conversation above, the couple's tendency to expand their agricultural fields beyond the 5-hectare limit could still tell us something about a lack of trust in the local authority, the ICLT committee, and the conservation

groups to allocate a piece of land to future users. According to interviews and observations, villagers prefer to secure as many plots of land as they can for their children rather than leave their fate in the hands of the ICLT committee, village authority, or conservation groups. MFI/bank debt has greatly facilitated such expansion. For example, a 27-year-old woman with two children living in Kati shares, "I have never borrowed before, as the prices of petrol and herbicides have increased in the last three years, plus we want to expand the agricultural fields (chamkar in Kh.), we borrowed US\$ 1000 from Prasac." MFI/bank debt facilitating agricultural expansion in the protected area is also observed in the case of Kulen Promtep Wildlife Sanctuary (de Lange 2022).

7.4 Collective land tenure and the privatization of health care

I now turn to the privatization of health care and how it undermines the collective form of land tenure. Raam, a 30-year-old woman living in O Rona, believes that collective titles are more difficult (yab in Kh.). Individual titles are easier. I ask her why she thinks so. She explains: "If we owe a piece of land individually, we can ask for a hard title (plaang reung in Kh.). For example, if we get sick or really impoverished (tol in Kh.), we would get a good price for our land. In contrast, dei sahakum (communal land) like this, dei ruam (collective land) like this, when we need to sell our land, we can only get about 1 or 2 million riels per hectare." Raam tells the story of her older sister, who developed a complication from malaria while taking anti-malarial medication during her pregnancy. The family took her to Vietnam for treatment, and it cost them half a hectare of land to cover the cost of the treatment. Similarly, Sina, who lives in Srae Lvi, sold 1.5 hectares of cashew field within ICLT to pay off the microfinance debt. The debt was incurred largely because of caring for her husband, who had undergone leg surgery at Calmette Hospital in Phnom Penh.

Like Sina and Raam's older sister, Chreb, a 40-year-old widow of five children living in Srae Preah, when asked what the main cost of living is at present (samai ei lov in Kh.), replies: "Treating illnesses." She continues, "The cost of farming is also high, but we get money back. But to pay for the illnesses, the money is just gone". She later said it cost her about 1 million riels (US\$250) a month to treat her mother's illnesses before she died. Before that, Chreb had spent \$7,000 treating her husband, taking him to hospitals in Cambodia and across the border. When her husband died, the family used up all their savings, and Chreb inherited 18 million riels (\$4,500) in debts to informal creditors, mainly her Bunong relatives. The idea of debt inheritance here has nothing to do with Cambodian legal systems, but rather with the moral obligation to repay (see also Graeber 2011; Guérin and Kumar 2020). Because none of these

informal debts to her Bunong relatives were collateralized, Chreb could choose not to repay, but she chose to. To pay off this debt, she sold two hectares of her cashew field for USD 7000. In the interview, I did not probe further into who she sold this piece of land to (more on the implications of land use later).

She said that most of the lenders did not charge interest, but they demanded that she perform the purification ceremony (ampih in B., lih leang in Kh.) for them because the borrowed money became unclean when the husband died. So, a purification ceremony is needed to stop the impurity from being passed on to the lenders. A purification ceremony required at least a chicken and a jar of rice wine (andranh yang B., sra peang in Kh.). Some creditors demanded a pig and a jar of rice wine. She confessed that when her daughter got married, she chose to borrow 6 million riels (1500 USD) from Prasac rather than from other Bunong creditors because she was not required to perform purification ceremonies. Her loan officer is Khmer, but I asked hypothetically if the loan officer was Bunong, would she have to offer a purification ceremony? She said, "No, need because [1] do not borrow the money from him; he only works for others." My Bunong assistant added: "That's why many people now prefer to borrow from angkar (MFI/banks) because they do not need to ampih (purification ceremony)." I learned more about this customary practice when I discussed it further with my participants in Kati. I was told repeatedly and accurately that the purification ceremony is only necessary when the borrowed money is used for weddings or other sacrificial ceremonies. The purification ritual is not necessary if the borrowed money is used for agricultural production or to buy medicine (thnam peat in Kh.).

Borrowing to pay for health care is common in Cambodia. It is a consequence of the privatization of health care induced by neoliberal policies of debtfarism (Bateman 2019; Green 2023). The term debtfarism is derived from debtfare, as it is seen as a substitute for state social welfare and the state's responsibility to its citizens (Soederberg 2014). As Iskander et al. (2022:52) state, "Cambodia's debt crisis is a public health crisis". The same study shows that 88% (n = 621 households) of respondents sought medical help or advice from private providers (Iskander et al. 2022). In addition, based on my research in Ratanakiri among three Indigenous ethnic groups (Jarai, Tampuan and Kreung), borrowing to pay for health care was a recurring topic of conversation. In one Jarai community, a savings scheme called *lian phoung* (literally translated as clan money) was initiated to curb this distress or emergency borrowing.

As the cases above show, it does not matter if a piece of land is within the ICLT, it is sold when villagers need money to pay for health care. The privatization of health care has not only economic consequences - in this case, land dispossession - but also cultural ones. When

households have less land to farm, married daughters move to live in their husband's village. This practice changes the Bunong custom of matrilocal practice, where the husband lives and farms in the wife's village. Although historians specializing in highland societies in Cambodia and the central highlands of present-day Vietnam have documented changes in matrilocal practices (Salemink 1999; Guérin 2008), the changes brought about by land scarcity are more recent. Chreb says: "Two of my daughters have no land to farm, so they follow their husbands. One lives in Beng hamlet (Kati village) and the other in O' Chrar." When asked if there was any forest land (dei prey in Kh.) left for newly married couples like her daughters to farm. She replied, "No, it is all gone (oh roling in Kh.), we could clear more forest, but we have to hide it [from the authorities], those who dare have more land. But we do not dare." The villagers are aware that it is illegal to clear the forest inside the core zones, so they do not openly discuss such involvement. However, the desperate situation may push villagers to clear forest in the core zones. This is not to say that those who clear land in the core zones are always desperate. It may just be that some have more resources (e.g., access to larger loans to buy equipment or pay for labor). For example, 23-year-old Vanna and her maternal aunt, who live in O Rona, share their perspectives and testimonies in the discussion below.

Phasy: When you live inside the ICLT (*dei sahakum* in Kh.) like this, have you been able to clear more land for farming?

Vanna: I am not sure, according to my observation, some have managed to clear more land. But for us, we do not dare to clear more land because we only have the same amount of land. Those who dare to clear more forest continue to clear more. They have more land.

Phasy: Why don't you dare?

Vanna: I am afraid of being arrested (*khlach ke chab* in Kh.). We will not be able to bail ourselves out. There are those who manage to clear the land reserved for the community, so they have more land. When the cashew trees grow big, the conversation group (*krom aphireak* in Kh.) stops arresting people. For us, we do not dare to take this risk, we are afraid of being put in prison. We are afraid of not getting a piece of land and of being put in prison.

Phasy: Has anyone been arrested?

Vanna: Yes, there have been a few cases in this village.

Phasy: How long have they been in prison?

Vanna's maternal aunt: 5 to 6 months.

Vanna: In prison before April, just released around July.

Phasy: Are they well off?

Vanna's maternal aunt: They are quite well-off.

Vanna: They are already well-off, but they want a bit more.

Vanna's maternal aunt: You will see, on the road, the big tall house, that is one of them

[villagers who were arrested].

Vanna and Vanna's aunt's observation echoes that of my village assistant in Srae Lvi and a resident of Srae Lvi. My village assistant in Srae Lvi says, "Some people already have 10 to 20 hectares, and they continue to clear more forest. One of them was put in jail. But they have not learned a lesson. Others hide [from the authorities] and continue to clear more forest. They are not even poor; they are rich; look at their houses. They all have big houses." Sina, a 37-year-old woman with three children, a single mother, and a forest goer, says: "Well when we use our labor (komlang in Kh.) to clear the forest, not much forest is cleared. But they use money and machines to clear [the forest], so it is faster. They cut with machines, and they hire people to do the cutting. We are tired of walking around their field, but, they still think their field is small. Sometimes I say your field is so big, and they say you said it was big, but from what I see, it is small. It took a morning to walk around the field, and they still think their field is small!"

The financialization of agricultural production and social reproduction, the privatization of public services (e.g., health care), and the act of land encroachment and grabbing inside the ICLT create conditions that leave villagers little choice but to participate in clearing now before everything is gone. MFI/bank loans have facilitated and continue to facilitate this process. However, not all households have the means to do this, e.g., a widow, a single mother, and households with limited resources are left behind. This act of clearing now, before it is all gone, prompts my village assistant in Kati to constantly express her concern to me: "When the income from logging disappears, my villagers will fight each other for a piece of land (don *deurm dei knea* in Kh.). It is already happening."

7.5 Debt and Deforestation

As highlighted above, although not always the case, debt, and desperation can contribute to the over-exploitation of forest products and deforestation. In other parts of Cambodia, debt has been repaid primarily through labor migration and intergenerational dependency (Bylander 2014, 2019, 2022; Green & Estes 2019; Brickell et al. 2021; Green & Estes 2022). This has created debt bondage and trans-local precarity, meaning that what happens in the

production space affects life at home in rural areas (Green & Estes 2019; Natarajan et al. 2019; Green & Estes 2022). In Srae Lvi and Kati, my data suggests that income-generating activities to repay debts are currently very limited within the protected area (Keo Seima Wildlife Sanctuary). For the Bunongs, and probably for all smallholder farmers, working in a confined space with limited mobility is not desirable. As Natarajan et al. (2019) show, some smallholders who are forced by debt to work in the mobility-restricted brick kiln industry want to return to rural life once the debt is repaid. In Srae Lvi, Sina, a 37-year-old single mother of three sons, told me during a trek that she had once worked for a month on a nearby banana plantation. But she could not stand the cramped life on the plantation, so she decided to leave. She preferred to go into the nearby forest to collect the rattan tops, cobra mushrooms, or other products that have monetary value while at the same time earning some daily wages by weeding the cassava or cashew fields for other villagers.

As borrowers struggle to repay, deforestation and overexploitation of timber and non-timber forest products would increase not only in the community zones but also in the core zone (dombon snol in Khmer). If conservation regulations are to be strictly implemented and enforced, conflicts between local people and conservation groups (krom aphireak in Kh.) will increase, although this is already happening. For example, while Sina was telling me the above story, we were taking a break by sitting under a solitary wild almond tree (irvingia malayana, chombok in Kh.) in the middle of a sea of cassava fields (within the core zones), Sina looked around and remarked, "I used to collect rattan tops here, but now I have to go further and further" as the forest has been converted into cassava fields. Sina continued, "During the dry season, this place looks like an airplane runway (prolean yonhoh in Kh.). Next to us there was a small cassava field that was not maintained, so I asked what happened to this cassava field, why it is very *nhiat* (grassy)? Sina said "Krom aphireak (conservation groups) arrested (chab in Kh.) the owner because he dared to challenge the authorities by confronting the conservation groups." When cash becomes the dominant means of agricultural production, farmers need larger fields to make a living. In addition, the lack of trust in the ICLT committee, the local authority, and conservation groups to protect the reserved land for future users, as discussed above, may have led villagers to clear and claim land individually before it is all gone. Those with the means to expand their agricultural land are doing so. Some may have used MFI/bank loans to pay for hired labor equipped with chainsaws in the conversion process (see de Lange 2022 in the case of the Kulen Promtep Wildlife Sanctuary). This expansion would come at the cost of deforestation and at the expense of poorer households like Sina's, who depend on forest products for their livelihoods.

8. Conclusion: Hopes and concerns

This report shows the transformation of the livelihoods of the Bunong household living adjacent to the core zone of a protected area, the Keo Seima Wildlife Sanctuary (KSWS). After three decades of war and turmoil ended, the people of Srae Lvi and Kati returned to their war-ravaged villages to resume livelihood activities such as resin collection, wildlife hunting, and rice cultivation. When the opportunity arose to earn money from logging, the villagers participated. However, not all households were willing or able to participate in such activities. Households that lacked young male labor were unable to participate, as logging activities were concentrated around male power. Households that perceive logging and transportation activities as dangerous avoid participating in such activities. It is not uncommon to hear stories of a family member or fellow villager being killed while transporting timber because the motorbike fell over, or while cutting timber because the loggers mishandled the chainsaw.

As luxury woods such as beng (Afzelia xylocarpa) and neang noun (dalbergia bariensis) became scarce, loggers saw their income drop dramatically from US\$200-500 per trip to US\$20-25 per trip for non-luxury woods such as sokrom (xylia xylocarpa) and kokoh (sindora cochinchinensis). When income from luxury timber harvesting diminishes, villagers turn to cash crops (cashew and cassava) as their main source of income. It is important to note, however, that logging and wildlife hunting remain complementary sources of income. In Srae Lvi and Kati, villagers experimented with cashews much earlier than with cassava. The people of Srae Lvi have only been growing cassava intensively for the past four to five years, while in Kati it has only been two to three years. As the evidence from my household interviews shows, MFI/bank debt accumulates with cassava cultivation because cassava requires much more time and labor to maintain the fields. Time and labor are costly, and farmers become increasingly dependent on herbicides and petrol (for the manual grass-cutting machine and herbicide sprayer) to control grass infestations. As herbicide and petrol prices rise, farmers accumulate more debt, mainly to microfinance institutions (MFIs) and banks. Mahanty and Milne (2016), who conducted their research in the same district a decade ago, describe cassava as a gateway crop into capitalist relations where land and labor are commoditized.

The increasing trend for Bunong households to rely on debt, mainly from microfinance institutions and banks, for their agricultural production and social reproduction raises concerns about their land and livelihood security and how this, in turn, drives deforestation. Although many borrowers can repay now, there is no guarantee that they will be able to do so in, say, the next five years. Based on my data in Ratanakiri and the lowland provinces, when we looked at the loan histories

of the participants, by the fifth cycle of borrowing, the borrowers started to show some signs of difficulty. When the growing season begins, they need to borrow money from the MFI/bank again at an annual interest rate of 18 percent (excluding other service fees) to finance their agricultural activities, food, and other basic needs. The microfinance loan can enable many of these smallholder farmers to survive from one rainy season to the next while accumulating debt in the medium and long term. In the absence of systematic mechanisms to assist debt-distressed borrowers (Res 2021a), pressure on natural resource extraction and forests would increase as debt exceeds borrowers' ability to repay. This could lead to increased conflict between local people and conservation groups, as Bunong households are less likely to migrate for work. This is not to say that distress migration is an alternative to deforestation and conflict. As research shows, such migration can increase household vulnerability, and migrants are susceptible to various forms of exploitation (Bylander 2014, 2022; Natarajan et al. 2019, 2020; Brickell et al. 2022).

As shown in the section on loan structure and debt repayment, the villagers of Srae Lvi and Kati have borrowed extra money to pay the interest at least several months in advance, which is clearly unproductive. Are there any options that would allow more flexibility in the payment of interest, such as a lump sum payment at harvest time? In fact, informants tell me that although informal lenders charge a much higher interest rate (5 to 10 percent per month), they collect the interest payment at the end of the loan period. Perhaps WCS could consider working with MFIs/banks that are active providers in KSWS to design a loan product that is more suitable for farming communities that depend on seasonal income in terms of loan terms and conditions such as loan duration, principal payment (*leung deurm* in Kh.), and interest payment (*leung ka* in Kh.).

In terms of how debt affects conservation efforts in the KSWS, I argue that among Indigenous communities with communal land titles debt drives deforestation in two specific ways. First, MFI/bank loans can be used to pay for hired labor equipped with chainsaws, which facilitates faster land clearance in community or core zones. The expansion of agricultural land in Cambodia's uplands is not only due to the boom in cash crops (mainly cassava) and migration (Mahanty & Milne 2016; de Lange 2022; Mahanty 2022). This study shows that this is also due to the villagers' lack of trust in the ICLT committee, local authorities, and conservation groups to secure land for their descendants (future users). This creates a tendency to clear now before it is all gone. Thus, households with the means and capacity to clear more land are doing so. This expansion is at the expense of deforestation and poorer households who depend on forest products for their livelihoods. I wonder if it is possible for WCS to work with local authorities,

the Ministry of Environment, and relevant stakeholders to ensure the availability of land for future users, at least for the communities holding ICLTs?

Second, debt can contribute to deforestation when villagers are in a desperate situation, either because they have lost their land directly through debt repayment or because they need to pay for health care. It could lead villagers to overexploit forest resources such as timber and other forest products. Or they could clear more land for farming. Based on my household interviews, I observed the former scenario rather than the latter because poorer households, for example in the case of Vanna discussed above, believed that she and her family members could not afford to bail themselves out of jail if they were to be arrested. The fear of being arrested for land clearance was more ominous than the fear of being arrested for logging. This fear was probably shaped by several cases where villagers were arrested for clearing land that had been classified as core zones (dombon snoul in Khmer) of protected areas.

It is good to learn that MFIs/banks have claimed to have a limited amount of loans for those residing within the ICLTs. However, setting a limit on the amount that can be borrowed is not enough. Residents inside the ICLT use the social relations and social arrangements outside the ICLT boundaries to secure a larger loan amount. For example, the case of Lyn, who secured a larger loan with the help of relatives living outside the ICLT, and the case of Yiam, with her land titles outside the ICLT. In addition, residents of the ICLT can circumvent the loan size limit of 12 million riels (approx. USD 3,000) through the practice of multiple borrowing. MFIs/banks need to take more responsibility. For example, post-disbursement monitoring and evaluation activities should be strengthened. MFls/banks should not wait until the last moment and use the refinance or reloan policy to "rescue" borrowers from a debt drowning situation. Evidence shows that this policy only helps borrowers in the short term (Res 2021a; Brickell et al. 2022), while in the medium and long term, it pushes borrowers further into debt, resulting in borrowers resorting to last-ditch debt repayment strategies such as land sales and distress migration. As many borrowers in Srae Lvi and Kati have not yet lost their ability to repay, this may be an opportunity for microfinance institutions and banks to do things differently by investing more budgets in postdisbursement monitoring and evaluation activities.

Finally, I would like to end this report with the hope that the informants repeatedly shared with me, which is a return to resin collecting (*kom rohach*). Many of the informants do not see the dependence on debt to finance their agricultural activities as a path to prosperity. So those who still have resin trees, especially in Kati, want to rely on their resin trees rather than MFI/bank loans. However, those who cannot return to resin trees would continue to rely on MFI/bank loans to finance their agricultural activities, ritual activities, health care costs, food, and other basic needs. As discussed in Section 3, the resin trees in Kati were under threat from logging.

Although there were regular community forest patrols, the people of Kati, and even some of the patrollers, felt that this was not enough to protect their resin trees and prevent deforestation in general. One of the community forest patrollers suggested involving the relevant authorities in these community forest patrolling activities. I was also told in an informal group discussion that the patrollers should be equipped with modern technology, such as spy cameras and recorders, to increase their security. For the rest, I leave it to WCS to think about how the REDD+ fund can be used to increase the effectiveness of activities that could save the resin trees and prevent deforestation in Keo Seima Wildlife Sanctuary.

An important piece of policy-oriented research to complement this study would be to focus on financial regulators and actors, namely the National Bank of Cambodia (NBC), the Cambodia Microfinance Association (CMA), the Association of Banks in Cambodia (ABC), microfinance institutions (MFIs) and banks that are active providers in the Keo Seima Wildlife Sanctuary. Research could begin by exploring whether there are policies or protocols in place for lending to Indigenous Communal Land Title (ICLT) holding communities and those living in protected areas. What are these policies and how are they implemented? Post-disbursement monitoring and evaluation activities are other research elements that could be considered. What are these activities? And again, how are they implemented on the ground?

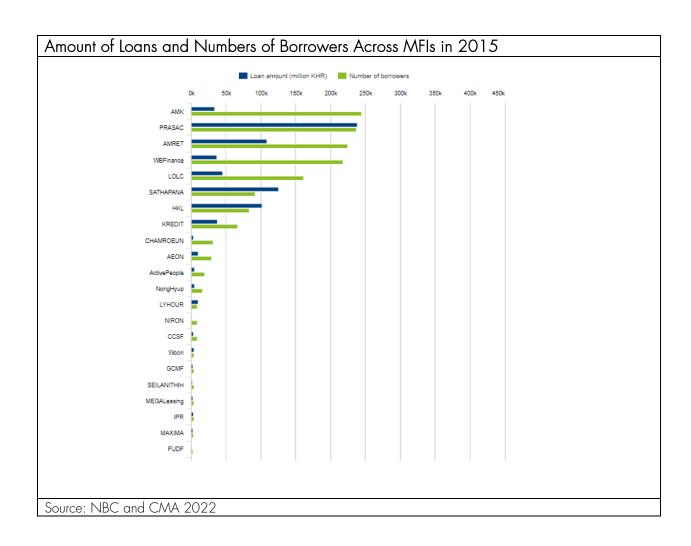
Annex 1: list of indebted households

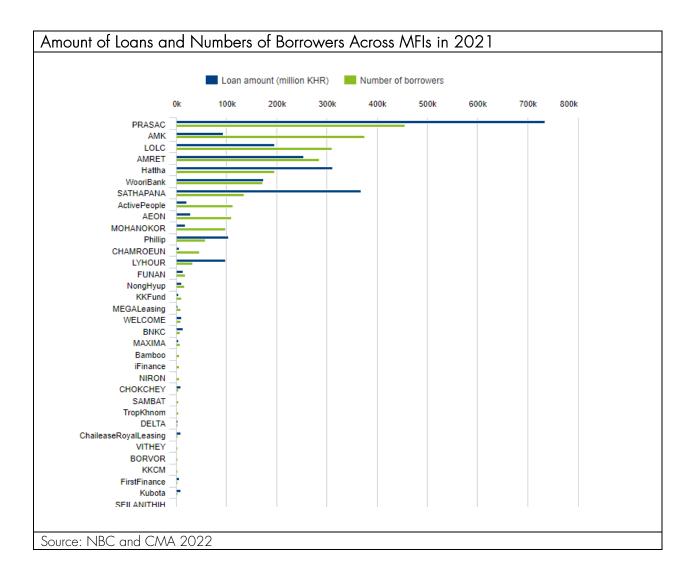
ID	Sex	Age	Village	Current debt (USD)	Lenders	Loan cycle	Cashew	Cassava	Rice	Resin
01	f	30	Srae Lvi	2000	Prasac	3	yes	yes	yes	no
02	f	60	Srae Lvi	1500	AMK	4	yes	yes	yes	no
03	f	29	Srae Lvi	750	AMK	1	yes	yes	no	no
04	f	24	Srae Lvi	1500	Pprasac	4	yes	yes	yes	no
06	f	34	Srae Lvi	2000/ 1500	Prasac/ AMK	5/ 3	yes	yes	no	no
07	m	69	Srae Lvi	1000	Prasac	3	yes	yes	yes	no
08	couple	35/ 48	Srae Lvi	1000	Prasac	3	yes	yes	yes	no
10	f	34	Srae Lvi	1500	AMK	2	yes	yes	yes	no
11	f	43	Srae Lvi	50	Informal	n/a	yes	no	ND*	no
13	f	50	Srae Lvi	2000	Prasac	3	yes	yes	yes	no
14	f	42	Srae Lvi	1000	AMK	5	yes	yes	yes	no
16	f	22	Srae Lvi	1000/	Prasac/ AMK	1/ 3	yes	yes	no	no
18	f	21	Srae Lvi	2000	Prasac	3	yes	yes	yes	no
19	m	36	Srae Lvi	1000	Prasac	1	yes	yes	yes	no
20	f	70	Srae Lvi	750	Prasac	2	yes	yes	yes	no
21	couple	52/ 52	Srae Lvi	2000	Prasac	3	yes	yes	yes	no
23	f	58	Srae Lvi	3000/ 1000	Prasac/ AMK	1/ 5	yes	yes	yes	no
24	m	25	Srae Lvi	2000/ 1500/ 2000	Prasac/ AMK/ LOLC	2/ 2/ 1	yes	yes	yes	no
25	f	50	Srae Lvi	3250/ 1500/ 750	Prasac/ AMK/ WB	1/ 6/ 2	yes	yes	yes	no
27	f	37	Srae Lvi	3200	Prasac	3	yes	yes	no	no
30	f	40	Srae Lvi	500	informal	n/a	yes	yes	yes	no
31	f	44	Srae Lvi	3000/ 750/ 250	Prasac/ AMK/ Amret	ND*	yes	yes	yes	no
32	m	50	Srae Lvi	2500/ 375	Prasac/ AMK	ND*	yes	yes	yes	no
34	couple	60/ 61	Srae Lvi	1250	Prasac	ND*	yes	yes	yes	no
35	couple	40/ ND*	O Rona	750	Prasac	3	yes	yes	no	no
36	f	30	O Rona	2000	Prasac	2	yes	yes	yes	no
41	group	36	O Rona	ND	MFI/bank	ND*	yes	yes	yes	no
42	f	48	O Rona	1000	Prasac	3	yes	yes	yes	no

45	f	42	O Rona	2500/	Prasac/	3/	no	yes	no	no
				375	AMK	4				
46	f	23	O Rona	1500	AMK	4	yes	yes	no	no
47	f	43	O Rona	2500/ 750	Prasac/ AMK	6/	yes	yes	yes	no
48	f	20	O Rona	1000	Community	n/a	yes	yes	yes	no
					saving					
50	f	22	SraePreah	750	Mohanokor	4	yes	yes	yes	no
52	couple	27/ 32	SraePreah	950/ 200/ 1000	WB/ ACLEDA/ LOLC	ND*/ 3/ 1	yes	no	yes	no
53	m	49	SraePreah	10000	ACLEDA	ND*	yes	yes	yes	no
54	f	30	SraePreah	2000	Sathapana	ND*	yes	yes	yes	no
57	f	35	SraePreah	2000/ 3 tons of cassava	MFI/ cassava trader	ND*	yes	yes	yes	no
58	f	48	SraePreah	1500	Hatta	1	yes	yes	yes	no
59	f	19	SraePreah	4000	Prasac	3	yes	yes	ND*	no
60	f	65	SraePreah	250	Prasac	ND*	yes	yes	yes	no
61	f	40	SraePreah	1500	Prasac	3	yes	yes	yes	no
65	f	31	SraePreah	5000/ 5000	WB/ Funon	ND*	yes	yes	yes	yes
66	f	62	Kati	750	ACLEDA	ND*	yes	yes	no	no
67	f	19	Kati	500	Prasac	1	yes	yes	no	no
69	f	47	Kati	2500	ACLEDA	2	yes	yes	no	no
<i>7</i> 0	f	39	Kati	500	Relative	n/a	yes	no	no	no
<i>7</i> 2	f	23	Kati	500	Prasac	1	yes	yes	no	no
<i>7</i> 4	f	39	Kati	1000	Prasac	1	yes	yes	no	no
<i>7</i> 6	f	40	Kati	20000	Prasac	2	yes	no	yes	no
77	f	25	Kati	125	Community saving	n/a	yes	yes	no	no
<i>7</i> 8	f	46	Kati	750/ 250	Prasac/ Daughter	1/ n/a	yes	yes	no	no
84	f	28	Kati	500	Prasac	1	yes	no	yes	no
86	f	27	Kati	1000	Prasac	1	yes	yes	yes	no
88	f	30	Kati	10,000	Prasac	2	yes	yes	no	no
90	f	27	Kati	3000	Prasac	1	yes	yes	no	no
92	f	40	Kati	16000	Sathapana	4	yes	yes	no	no
94	f	28	Kati	1000	Prasac	1	yes	yes	yes	no
96	couple	27/ 30s	Kati	2000	AMK	3	no	no	no	no
97	f	49	Kati	1000/ 250	Prasac/ Relative	1/ n/a	yes	yes	yes	no
99	f	35	Kati	1000	Prasac	1	yes	yes	yes	no
101	f	27	Kati	5000	ACLEDA	2	yes	yes	no	no
104	f	29	Kati	3000	Prasac	1	yes	yes	yes	no
107	f	38	Kati	1000/ 100	Prasac/	1/ n/a	yes	yes	no	no

					Community					
					saving					
111	f	36	Kati	500	Prasac	1	yes	yes	yes	no
113	couple	35/	Kati	ND*	Siblings	n/a	yes	yes	yes	no
		45								
*ND	*ND = not identified									

Annex 2: amount of loan and number of borrowers across MFIs





Annex 3: References

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