

THE DEVELOPMENT OF LIVELIHOOD STRATEGIES FOR  
HANI MINORITY IN THE MODERNIZATION ERA OF  
CHINA: A CASE OF MENGSONG COMMUNITY IN  
XISHUANGBANNA, YUNNAN, P.R. CHINA



DOCTOR OF PHILOSOPHY IN ADMINISTRATIVE SCIENCE  
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LI ZHINAN

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY  
IN ADMINISTRATIVE SCIENCE  
ACADEMIC ADMINISTRATION AND DEVELOPMENT MAEJO UNIVERSITY  
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ชื่อเรื่อง	การพัฒนากลยุทธ์ความเป็นอยู่สำหรับชนกลุ่มน้อยฮานีในยุคทันสมัยของจีน กรณีศึกษา ชุมชนเมงสง เขตปกครองตนเองสิบสองปันนา มณฑลยูนนาน ประเทศสาธารณรัฐประชาชนจีน
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### บทคัดย่อ

การบรรเทาความยากจนเป็นวัตถุประสงค์หลักของรัฐบาลจีนตลอดระยะเวลาของการพยายามทำประเทศให้มีความทันสมัย อย่างไรก็ตามสิ่งกีดขวางทางด้านวัฒนธรรม ซึ่งรวมถึงความแตกต่างกันทางด้านภาษา ระดับการศึกษาที่ต่ำ และการไม่คุ้นชินต่อการบังคับให้อยู่ในภาวะเปียบเป็นสิ่งขัดขวางให้ชนกลุ่มน้อยบนพื้นที่สูงในจีนไม่ค่อยยอมรับในกลยุทธ์ “ความเป็นอยู่ของผู้อพยพ” ที่กลุ่มชนฮานีซึ่งเป็นคนส่วนใหญ่ของประเทศประกาศใช้อยู่ ชนกลุ่มน้อยจำนวนมากเหล่านี้จึงยังคงมีการดำรงชีวิตที่พึ่งพาทรัพยากรธรรมชาติที่มีอยู่ในพื้นที่เป็นหลัก อย่างไรก็ตามชาวฮานีซึ่งเป็นชนกลุ่มน้อยกลุ่มหนึ่งกลับหันมาปลูกชาเพื่อการยังชีพเพิ่มมากขึ้น เนื่องจากการตลาดชาที่กำลังเติบโต

โดยอาศัยแนวทางของความเป็นอยู่อย่างยั่งยืน (Sustainable Livelihood Approach: SLA) การศึกษานี้จึงเน้นไปที่ชุมชนชาวฮานี ในเมืองเมงสง ซึ่งตั้งอยู่ในเขตปกครองตนเองสิบสองปันนา มณฑลยูนนาน แห่งประเทศสาธารณรัฐประชาชนจีน โดยทำการตรวจสอบปัจจัยภายนอกตลอดจนกระบวนการทางสถาบันที่มีผลต่อการพัฒนาความเป็นอยู่ของครัวเรือนชาวฮานี ทำการสำรวจกลยุทธ์ความเป็นอยู่ที่ครัวเรือนชาวฮานีนำมาใช้เพื่อตอบสนองต่อความเปลี่ยนแปลงทางสิ่งแวดล้อมของครัวเรือนชาวฮานี และชี้แนะกลยุทธ์ที่เหมาะสมสำหรับการครัวเรือนฮานีในอนาคต วิธีการวิจัยในการศึกษานี้ ได้แก่ การวิเคราะห์เอกสาร การสังเกตอย่างมีส่วนร่วม การสัมภาษณ์เชิงลึก และการอภิปรายกลุ่มย่อย รวมถึงข้อมูลเชิงปริมาณจากกลุ่มตัวอย่างในชุมชนชาวฮานี จำนวน 222 คน ซึ่งได้จากการสุ่มแบบสะดวก จากนั้นวิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนาและการวิเคราะห์เนื้อหา

ผลการศึกษาระบุว่า ปัจจัยหลักภายนอกที่สร้างเสริมการเปลี่ยนแปลงความเป็นอยู่ของชาวฮานี ได้แก่ นโยบายการพัฒนา นโยบายที่ดิน นโยบายสิ่งแวดล้อม นโยบายชายแดน รวมถึงแนวโน้มที่สดใสอย่างมากของตลาดชาปุเออ และการพัฒนาการค้าในชนบท สำหรับผลกระทบปัจจัย

ภายนอกพบว่า สถาบันชุมชนแบบดั้งเดิมของชุมชนชาวฮานีถูกแทนที่โดยการตลาดสมัยใหม่ ซึ่งมีบทบาทโดดเด่นทั้งในด้านการผลิตและบริโภคของท้องถิ่น ดังนั้นเพื่อตอบสนองต่อการเปลี่ยนแปลงเหล่านี้ครัวเรือนชาวฮานีจึงนำเอากลยุทธ์การผลิตบางอย่างเข้มข้นมาใช้ โดยการขยายพื้นที่ผ่านการไถโค่นและเผาป่า มีการใช้แรงงานจำนวนมากเพื่อการผลิตชา การลงทุนในวัสดุอุปกรณ์การทำชา และการสร้างการเข้าถึงทางสังคมของตลาดชา นอกเหนือจากรายได้ของการผลิตชาแล้ว ครัวเรือนชาวฮานียังสร้างรายได้อื่นนอกเหนือจากรายได้ภาคเกษตร ซึ่งชี้ให้เห็นการใช้กลยุทธ์ของความหลากหลายเพื่อให้มีรายได้เสริมสำหรับการพัฒนาความเป็นอยู่ให้มีความก้าวหน้ายิ่งขึ้น ควรมีการเพิ่มมูลค่าให้แก่ชา การส่งเสริมการปลูกพืชเศรษฐกิจอื่นเพิ่มเติม และการดึงดูดการเคลื่อนย้ายแรงงาน ซึ่งเป็นสิ่งจำเป็นสำหรับครัวเรือนชาวฮานี

คำสำคัญ : ฮานี, สถาบันชุมชน, ทรัพย์สินทำมาหากิน, กลยุทธ์ครัวเรือน, พลวัตครัวเรือน



<b>Title</b>	THE DEVELOPMENT OF LIVELIHOOD STRATEGIES FOR HANI MINORITY IN THE MODERNIZATION ERA OF CHINA: A CASE OF MENGSONG COMMUNITY IN XISHUANGBANNA, YUNNAN, P.R. CHINA
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### ABSTRACT

Poverty alleviation has been a central objective of the Chinese government throughout its modernization efforts. However, cultural barriers, including language differences, low educational attainment, and an aversion to regimented lifestyles, have prevented upland ethnic minorities from adopting the "migrant livelihood" strategies prevalent among the Chinese majority. Many of these groups continue to rely on natural resource-based livelihoods in their villages. However, The Hani people, one such upland minority, have increasingly turned to tea farming for their subsistence due to recent market growth.

Employing the Sustainable Livelihood Approach (SLA), this study focuses on the Hani community of Mengsong, situated in Xishuangbanna, Yunnan, P.R. China. The investigation examines the external factors and institutional processes affecting Hani household livelihood development in recent years, explores the livelihood strategies adopted by Hani households in response to their changing environment, and identifies appropriate strategies to support future Hani household livelihood development. Research methods include documentary analysis, participatory observation, in-depth interviews, focus group discussions, and a quantitative household survey of 222 randomly sampled households in the community. Qualitative data were analyzed

using descriptive and content analysis techniques, with the quantitative data processed through the use of SPSS software.

The research had found several research findings: (1) the development policy, land policy, environmental policy, and border policy, as well as market trends of Pu'er tea boom and rural commercialization, are the main external factors driving Hani livelihood's changes; (2) under the impact of external factors, the traditional Hani community institution has been replaced by the modern market, which plays prominent roles in local production and consumption; (3) in response to these changes, Hani households have adopted a tea intensification strategy by expanding swidden lands, employing intensive labor for tea production, investing in tea equipment, and building social access to the tea market; (4) besides tea income, Hani households also generate non-farming and other farming incomes, indicating that a diversification strategy has been actively pursued as a supplement; and (5) to further advance livelihood development, appropriate support in adding tea value, promoting cash crops, and attracting mobile labor is necessary for Hani households.

Keywords : Hani, Community Institution, Livelihood Asset, Livelihood Strategy,  
Livelihood Dynamic

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Li Zhinan

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## LIST OF ABBREVIATIONS



CC	Cash Crop
DFID	Department for International Development
FA	Financial Asset
HA	Human Asset
HRS	Household Responsibility System
LA	Livelihood Asset
LD	Livelihood Dynamics
LO	Livelihood Outcome
LS	Livelihood Strategy
NA	Natural Asset
PA	Physic Asset
PADI	Per-capital Annual Disposable Income
SA	Social Asset
SL	Sustainable Livelihood
SLA	Sustainable Livelihood Approach
XBFM	Xin Bian Fu Ming (Prospering Border Region and Enrich People Living There)

# CHAPTER 1

## INTRODUCTION

### Background and Justification

#### 1. Upland ethnic minority in China's modernization

The Chinese government recognizes 55 ethnic minorities, which, along with the Han majority, form a total of 56 nationalities in China. Ethnic minorities account for approximately 114 million people, or 8.49% of the population (Chinese Statistics Bureau, 2019). These groups are primarily concentrated in peripheral regions of the country, such as Yunnan province, residing in village clusters.

Yunnan province is home to a diverse array of ethnic minorities, with 25 distinct groups residing in the region, including Yi, Bai, Dai, Hmong, Hani, and others. The ethnic population in Yunnan represents 15.34 million residents, comprising one-third of its total population (Chinese Statistics Bureau, *ibid*). Yunnan is also a mountainous province by its 94% areas are uplands. Most Yunnan ethnic groups locate in upland areas with the historical reason of escaping from the political control.

Under the Marxist ideology of social revolution, upland ethnic minorities were considered “backward” and in need of modernization. Since the 1950s, the Chinese government has sought to modernize these communities through political reform, land reform, and the establishment of local governmental entities. This process weakened the social and cultural systems within minority communities, leading to an increasing divide between the ethnic groups and the mainstream Han population.

Given the isolation of subsistence economies, unique cultural practices, and geographical barriers in remote mountainous regions, it is widely recognized that the socio-economic development of upland ethnic minorities remains behind that of the rest of the country. Consequently, upland minority poverty has become a primary concern in China's Anti-Poverty Outline, with the poverty levels of these groups identified as severe in terms of distribution and depth.



As of 2003, 29 million Chinese citizens lived in poverty, of which 13.04 million resided in ethnic areas, accounting for 45% of the national total. Among the 592 counties prioritized for national poverty alleviation efforts, 267 were located in ethnic minority areas--also comprising 45% of the overall total. The poverty rate in ethnic areas was 7.3%, a figure 4.2 percentage points higher than the national average (China Rural Poverty Monitoring Report, 2003).

Among the upland ethnic minorities in Yunnan, nine are considered to have transitioned directly from a primitive society to socialism. Their overall poverty rate is calculated to be approximately 30%. The poor population in Yunnan province has a poverty rate of 15.5%, and is primarily distributed in ethnic uplands. Among these populations, the poor minority demographic accounts for 43.3% of the total population. Additionally, 0.84 million minority individuals in Yunnan province are considered poor, accounting for 46.2% of the total poor population in Yunnan ([www.yu.people.com.cn](http://www.yu.people.com.cn)).

Poverty alleviation has been announced by the Chinese central government as a modernization target for this century. Due to the natural, historical, and political background of upland minorities, their poverty level remains critical. Addressing poverty requires more effective development efforts and projects for the upland minorities. Thus, determining how to support the modernization of upland minorities through anti-poverty projects has become a pressing issue.

## **2. Leave not any minority behind: poverty alleviation program in China**

As a socialist country, China aims to establish a well-off society with equal development opportunities for all members, including ethnic minorities. Anti-poverty measures have been implemented as a national development goal, with general strategies formulated since the 1990s. Initially, the objective was to address poverty among the 80 million impoverished individuals within seven years, beginning in 1994. Subsequently, two ten-year plans for poverty alleviation were created spanning 2001 to 2010 (first ten-year plan) and 2011 to 2020 (second ten-year plan). To support rural development, the central government abolished agricultural tax in 2006 and initiated numerous anti-poverty projects in rural areas using the revenue generated from industry.

In 2013, General Secretary and President Xi Jinping proposed the concept of “Targeted Poverty Alleviation,” aimed at accurately identifying the poor at household and village levels, and designing and implementing suitable projects to address their needs. The primary value of targeted poverty alleviation is accuracy, shifting the focus from region-based to household or community-focused efforts. The strategy mobilizes all available resources, including government, public charity, and private sector contributions, towards alleviating poverty.

China’s poverty line is determined by annual capital income per household and adjusted in accordance to the Consumer Price Index (CPI) each year, for example, 3200 RMB in 2018. Once a household generates a sustainable income above the poverty line, it is considered to have escaped poverty. Furthermore, poor households must fulfill the criteria of “2 don’t worry and 3 guarantees”: sufficient nutrition and clothing (2 don’t worry), and safe housing, medical care, and education services (3 guarantees). These criteria are essential indicators in evaluating the accuracy of the poverty alleviation program on individual households and communities.

Chinese government achieved great success in poverty alleviation through its political mobilization. The ending time for poverty alleviation of China is 2020 as declared by our central government. There are only 16.6 million poor population remaining by the end of 2018. However, due to the unbalanced regional development, the poverty issue of upland ethnic minorities still keeps serious and has become a major influence against poverty reduction effectiveness and efficiency. The central government highlights upland minorities’ poverty as the “hardest bone” which need special effort. General secretary Xi Jinping pointed out that the areas of minority groups have the characteristics of ecological sensitive, cultural diversity, border frontier and poverty-stricken. The anti-poverty of upland ethnic minorities is so significant for whole China. Without the modernization of ethnic minorities, there will be no modernization of China. The well-off society of China cannot leave anyone of ethnic minority behind.

### 3. Cash crop: the choice for upland minorities' poverty alleviation

Recently, non-farming income (migrant work) has emerged as the primary income source for rural households, driven by urbanization in China. Data from the State Statistics Bureau indicates that the share of per capital income from migrant work in rural areas reached 45.5% in 2014, exceeding the share of per capital agricultural income (43%). As a result, the migrant wage has become a crucial factor in addressing poverty in rural China. Chinese scholars such as He (2013) assert that the rural household pattern can be characterized by a combination of farming and migrant work coupled with inter-generational labor division, where young adults leave the farm to work in urban areas while their elderly parents remain in rural areas to tend to the farm.

However, this does not hold for upland minorities in Yunnan. Wang and Wu (2014) found that the labor division in wage work among ethnic minorities in southwestern Yunnan is as low as 1.25% to 5.4%, while Xi Chao et al. (2018) report an even lower wage labor rate of 3.4% for ethnic minorities residing in the border regions of Yunnan. The inability to speak Mandarin, low educational backgrounds, and discomfort adapting to a disciplined lifestyle have been identified as primary barriers preventing these individuals from working in cities.

As such, cash crop cultivation has emerged as a more appropriate choice for poverty alleviation among upland ethnic minorities. Wu et al. (2015) indicate that the livelihood patterns of southwestern Yunnan's ethnic minorities have shifted from subsistence to cash crop cultivation, driven by government poverty reduction efforts. This shift in livelihood can be characterized by a gradual progression from complete dependence on grain, to grain combined with cash crops, followed by a predominance of cash crops, and ultimately, total reliance on cash crops. Yang (2017) demonstrates that the livelihood of the De'ang minority has transitioned to cash crop cultivation, particularly sugarcane. Several Hani communities have also adopted new livelihoods centered around cash crops such as tea and rubber in Xishuangbanna.

#### 4. Hani in Xishuangbanna

The Hani, a trans-boundary ethnic minority, mainly reside in the Greater Mekong Region. In China, the Hani primarily inhabit the upland and mid-upland areas between the Ailao and Wuliang Mountains, as well as along the Honghe River and Lancang River (the upper Mekong River) catchments in southern Yunnan. Incomplete statistics suggest that the global Hani population exceeds two million. According to Vietnam's 2009 national census, 21,725 Hani people reside within its borders. Official statistics for other Mekong countries are unavailable; however, academic estimates suggest that approximately 200,000 Hani live in Myanmar, 85,000 in Thailand, and 20,000 in Laos. China's 2010 National Census reports a domestic Hani population of around 1.63 million, with three-quarters residing in Xishuangbanna.

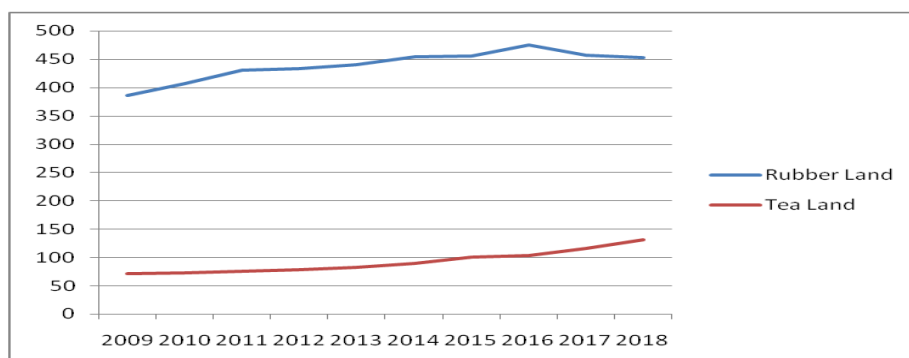
Traditionally, the Hani in Xishuangbanna represented the largest upland ethnic minority whose livelihood depended on swidden agriculture for centuries. As a poverty-stricken minority, the Xishuangbanna government's agricultural extension agents introduced various cash crop alternatives to swidden farming (such as pineapples, coffee, macadamia nuts, and sugarcane, among others) in recent decades. These agents believed that the Hani should be integrated into the growing socialist market economy and transition away from subsistence farming. However, almost all of these cash crop campaigns failed, primarily due to a lack of consideration for appropriate crop varieties that suited local micro-climates (Sturgeon, 2010). In 2003, the Poverty Alleviation Bureau of Xishuangbanna successfully promoted upland tea cultivation and lowland rubber farming. Consequently, many Hani in Xishuangbanna have transitioned to tea and rubber farming.

The history of rubber plantations in Xishuangbanna dates back to the 1950s, when the central government sought to achieve self-sufficiency in rubber production in response to U.S. economic sanctions following the establishment of the People's Republic of China. Xishuangbanna, characterized by warmer winters and abundant rainfall, was chosen as a promising site for rubber experimentation, and eventually, successful rubber cultivation was achieved. The technology was then applied by state farms to transform dense tropical forests on sloping lands into rubber plantations.

In the mid-1980s, staff from state rubber farms began teaching local villagers, including Hani and other ethnic minority communities living around the farms, how to cultivate rubber with the goal of increasing productivity to meet growing domestic demand. However, the extension of rubber farming to minority communities proved challenging, as the technical requirements and financial investments were not well-suited to their needs. Additionally, rubber production was relatively inefficient due to its low market price at the time and its long-term investment return (typically more than eight years). After China joined the World Trade Organization (WTO) in 2001, rubber prices rose, prompting more minority farmers to adopt rubber farming as a new source of income. (Sturgeon, 2012; Zhou and Yu, 2013; Ma and Zhang, 2013; Ouyang, 2018).

Hani, along with other ethnic minorities in Xishuangbanna, have a thousand-year history of tea cultivation, which was marked by the cross-border tea trade along ancient tea routes. Tea served as an important supplement to upland minorities' swidden agriculture at that time. Tea trade was halted during the commune period but resumed in the 1980s with the implementation of the open-door policy. From the 1980s to the 1990s, tea prices remained low. Consequently, Hani households often relied on their elder and children to pick tea, as the labor invested was not considered economically rewarding. However, in 2003, tea prices skyrocketed due to its natural production methods and a growing market demand for Pu'er tea, which uses minority tea as raw material. This surge in tea prices significantly increased the income of minority households, subsequently driving changes in their livelihoods. (Sturgeon, 2012; Yan, 2009).

The histories of rubber and tea plantations reflect the broader socioeconomic transformations in Xishuangbanna. The land utilization trends for rubber and tea over the past decade (2009-2018) also indicate these changes. In the last 10 years, the land area dedicated to rubber cultivation increased from 386.28 million mu to 452.96 million mu, and the land area for tea cultivation experienced a substantial increase from 71.77 million mu to 131.06 million mu (see Figure 1).



**Figure 1** The Land Areas Increase Curve of Rubber and Tea in Last 10-Year

(Unit: million Mu) (the statistics from Xishuangbanna Statistics Bureau, 2009-2108)

In 2018, the land utilization rate for grain in Xishuangbanna is only 16.09%. Compare to its grain land areas there are much more land utilization for cash crops, such as rubber, tea, fruit, vegetable, and sugarcane (see Table 1).

**Table 1** Land Utilization in Xishuangbanna

Main Crop	Grain	Rubber	Tea	Fruit	Vegetable	Sugarcane
Land Area	131.86	452.96	131.06	46.38	34.62	22.57
%	16.09	55.28	15.99	5.66	4.22	2.75

(Unit: million Mu) (the statistics from Xishuangbanna Statistics Bureau, 2108)

The cash crops have been advocated by Xishuangbanna government as the panacea to deal with poverty problem of ethnic minorities. The government has made the future development strategy to rural revitalization after poverty alleviation. In the next years, the land areas of cash crops will be extended further. Under this macro trend, Hani communities had been involved deeply in cash crop market and their livelihood transformed systematically (Zhou Jianxin and Yu Yuhui, *ibid*). Hani is a traditional upland minority who live harmoniously with its natural environment for centuries. The recent change of their livelihood induced by market economy is

sustainable? how their household adapt to the rapid transforming circumstance? and so on All these questions are the interest of this study.

### Livelihood Study

Livelihood studies have been central to rural development thinking and practice in recent decades (Scoones, 2009). Livelihood refers to the way people make a living. The concept of livelihood aims to go beyond the conventional definition of poverty, which has been found to be too narrow because it focuses only on certain aspects, such as low income. Livelihood studies offer a more coherent and integrated approach to poverty, encompassing not just low income but also other dimensions such as poor health, illiteracy, lack of assets, vulnerability, and general feelings of powerlessness. Livelihood studies also draw attention to the various factors and processes that either constrain or enhance the ability of poor people to make a living.

The concept of a Sustainable Livelihood Approach (SLA) was first introduced in the 1990s by the Brundtland Commission on Environment and Development, and the United Nations Conference on Environment and Development (1992). Later, many international development agencies, such as DFID, Oxfam, CARE, and UNDP, adopted the SLA in their programs to guide international aid and development efforts.

In 1992, Robert Chambers and Gordon Conway proposed the first definition of Sustainable Livelihood Approach (SLA):

*“A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, and provide sustainable opportunities for the next generation.”*

SLA highlight the capability of poor by adopting the thinking of people-centered development. The capability of poor is based on their livelihood assets which people can use to construct their living. Assets include both tangible assets and resources, and intangible assets such as claims and access.

The concept of capability was originally defined by Amartya Sen (1981) in his well-being approach to refer to people who can perform certain basic functions. Sen sees capabilities as “what a person is capable of doing and being”. Within the general utilization of Sen’s work, the concept of capability in livelihood refers to people utilizing livelihood opportunities to cope with temporary stress and shocks or adapt to long-term social, environmental, and economic changes.

Several UK institutions, including the Institute of Development Studies (IDS), have devoted substantial research efforts to the study of SLA. Ellis (2000) provide a good model for the Framework of SLA. According to Ellis, “The household has a livelihood platform which comprise 5 assets (NA, PA, HA, FA, and SA). Household access to these assets is modified by its social relations, institutions, and organizations with the context of external trends and shocks. These contextual situation influences the choice of household livelihood strategies with composing of an array of activities. In the end, household livelihood strategic activities produce livelihood outcomes. These strategies and outcomes in turn affect the assert and access regimes on which future livelihood are constructed or leading to a process of social cultural change in the community.”

Several SLA frameworks have been advocated by different international agencies, with the Department for International Development’s (DFID) SLA framework being the most popular. SLA was introduced in China in the mid-2000’s (Li et al., 2004). Pioneering Chinese scholars translated the SLA framework (typically the DFID model) into Chinese and explored its application in the Chinese context (Li Bing et al., *ibid*; Su Fang et al., 2009). Li et al. (2007) adopted SLA to measure the 5 assets of poor households using quantitative indicators, marking the beginning of quantitative research on livelihood in China. Since then, livelihood studies in China have focused on exploring the correlation between households’ assets and the livelihood strategies they adopt based on these assets in specific regions (e.g., Pen Jiquan et al., 2018).



However, there are limited studies on upland minority livelihoods using the SLA, especially in the Hani area.

Today, China is undergoing rapid transformation. The modernization process of China is changing its rural communities quickly through social and political reforms and the widespread adoption of market economy. The development process for upland minorities, such as Hani people, differs from that of the Han majority. As illustrated earlier, Han households choose to migrate to cities for work, sending remittances back home, while minority households adopt cash crop cultivation to support their families. By systematically analyzing Hani livelihood adaptation, this study can describe the vivid process of how macro factors at a macro level impact Hani communities and households at a micro level. Furthermore, it will uncover how Hani households actively respond to macro trends.

Examining Hani living today through the lens of SLA, it is evident their living standards have improved due to cash cropping (as a livelihood outcome), evident by the increase in per capital household income, new shelter, motorcycle ownership, electric equipment, meat consumption, and so on. However, the changes in Hani livelihood assets and their strategies for utilizing these assets to improve their lives under the dynamic socio-economic context are yet to be thoroughly analyzed. This study on Hani livelihood, through conceptualizing and measuring their livelihood process, will contribute to our understanding of their livelihood status and its dynamic characteristics. This knowledge can, in turn, help in formulating appropriate strategies to support the sustainable livelihood of Hani and other highland minorities in a midst China's modernizing progress.

### **Mengsong Community**

Mengsong, once predominantly characterized by its traditional swidden agriculture, has attracted the attention of numerous domestic and Western scholars studying Hani traditional swidden practices. Recently, the community has transitioned from swidden to cash crop farming, and has become one of eight prominent tea production areas in the Xishuangbanna Prefecture. Consequently, the booming tea

market in Mengsong has significantly impacted the lives of the local Hani population.

Mengsong, an administrative village, is situated within Menglong Township, Jinghong Municipality, Xishuangbanna Prefecture, Yunnan Province, People's Republic of China. Among the twenty administrative villages governed by Menglong, Mengsong is one of them. Topographically, Mengsong consists of two basins surrounded by mountains. The Mengsong Basin, which stands at an altitude of 1660 meters, boasts a cool climate that renders it ideal for tea cultivation.

The Mengsong administrative community governs eleven natural villages, including six Hani villages (Manwoke, Dazhai, Manjiaganbian, Manjiapokan, Manjiajiao, Manmai Yao) within the Mengsong Basin, as well as other villages, such as Ake and Lahu. The community is composed of 2883 people and 623 households. The six Hani villages in Mengsong share a tightly-knit clan system, cultural network, and other socio-cultural ties. As a result, this study focuses on these six Hani villages, referred to as the Mengsong Hani Community, as the subject of the research.

### Research Questions

As China undergoes modernization, peripheral upland minority groups, such as the Hani in Xishuangbanna, are also experiencing changes. This study aims to examine the living changes in local livelihoods through a case study, investigating how macro trends influence local peoples' lives and the manner in which they redefine their livelihoods in response to national and global transformations.

The study addresses the following research questions:

- 1) What are the important external socio-economic factors that have driven the livelihood change of Hani household in Mengsong Community recently?
- 2) How institutions in Mengsong Community have been reformed or newly initiated under the external impacts?
- 3) How Hani households in Mengsong Community developed their livelihood strategies as response to their external environment changing?
- 4) What are the appropriate strategies that can support future livelihood development of Hani in Mengsong Community?

## Objectives of the Study

The main objectives of the study include:

- 1) To study the external factors which have changed the livelihood of Hani in Mengsong Community during the past decades.
- 2) To analyze local institutional processes under the impacts of external factors.
- 3) To analyze Hani households' livelihood strategies in Mengsong Community as response to their external circumstances.
- 4) To formulate appropriate strategies for supporting future livelihood development of Hani in Mengsong Community.

## Scope and Limitation of the Study

Mengsong community and Hani households serve as the focus of this study, which examines various aspects of their livelihood assets, strategies, outcomes, as well as relevant policies and market trends, both at present and in the past.

Mengsong represents a typical case of a community experiencing a livelihood transition from swidden agriculture to cash crop cultivation. By conducting an in-depth study of Mengsong, the common parameters and patterns of the Hani people in Xishuangbanna can be generalized. However, it is worth noting that diverse livelihood models may exist among upland minorities in Xishuangbanna, and the case of the Hani in Mengsong provides only one reference, rather than a complete picture.

The current livelihood situation in Mengsong can be systematically analyzed through data collected from representative households. However, past livelihood data cannot be directly obtained and must be gathered from key informants based on their memories and from secondary data found in research papers, government statistics, and project reports. Since Mengsong has not been the subject of a detailed livelihood study in the past, the secondary data is also indirect.

The local livelihood adaptation process is time-consuming, but the field work conducted for this research was time-limited, which poses another limitation of the study.

### **Expected Results of the Study**

China has recently experienced a rapid modernization process due to the implementation of national strategies for poverty alleviation and urbanization. Most minorities in China are currently facing significant challenges stemming from their social-economic environment and will continue to do so in the future. Historically, these ethnic minorities have held distinct ideologies, life models, and development choices which differ from those of the majority population. In the present day, they must adapt to and partake in the standard development process alongside the rest of the Chinese population.

This study's findings will provide recommendations for governments to consider in their support of upland minorities, a group they have traditionally struggled to assist for two reasons. First, they often disregard traditional minority practices in favor of viewing them as primitive. This ignorance leads to conflicts and misunderstandings between the groups. Second, as the market economy is still a relatively new concept for governments, particularly local ones, ensuring that local households and communities can effectively participate in the market remains a challenge. The results of this study can deepen the government's understanding of upland minority livelihoods and offer recommendations for effective supportive interventions.

Important issues, challenges, and opportunities for future development were discussed by a focus group, which included government officials, business partners, and key members of the Mongsong community. This study thus has practical benefits for capacity building on local sustainable livelihood development.

The Sustainable Livelihood Approach (SLA) has been utilized in China for about 20 years, primarily for quantitative research in the central region of the country. Case studies on upland minority livelihoods in China's peripheral regions, however, are

limited. As such, this study can serve as a valuable application of the livelihood approach in a different context.

### Operational Definition of the Terms

**Hani** refers to an ethnic minority group living in the Xishuangbanna Prefecture, as well as along the Yuan River and Lancang River watersheds in Yunnan, China. They are also known as Akha internationally and can be found in the northern mountains of Thailand, Myanmar, Laos, and Vietnam. The Hani people speak Hani, a language in the Loloish (Yi) branch of the Tibeto-Burman family. In this study, Hani specifically refers to the local Hani population residing in Mengsong Community.

**Upland** refers to mountainous areas with elevations above 500 meters, or 200 meters higher than their surrounding areas. Yunnan is a mountainous province with 94% of its territory classified as upland.

**Upland minority** denotes the minority populations (as identified by the Chinese government) who reside in upland areas. Ethnic minorities in China have an anthro-geographic distribution; some minorities inhabit paddy valleys, such as the Dai and Dong, while others live in upland regions, like the Hani.

**Household** refers to the basic administrative units registered by the Chinese government to divide land rights under the Household Responsibility System (HRS). Households function as production units with all members sharing inputs and benefits. In the Chinese context, the term family may be used interchangeably with household, although family can be larger than a household. When a son marries and establishes a new household, for instance, they are still considered part of their parents' family. In this study, a Hani household is registered within the Mengsong community administration.

**Community** denotes a group of rural villages (natural hamlets) that share common norms, customs, and culture. In China, the hierarchy of administrative divisions ranges from the village level, administrative village, township, county, municipal, provincial, to national levels. A community generally lies between village and administrative village levels, and may equate to either of these divisions,

depending on cultural differences among villages within an administrative village. In this study, the term community refers to the Mengsong Hani community, which encompasses six Hani villages around the Mengsong administration center.

**Livelihood** is defined by DFID as the means of living, consisting of capabilities, assets (stores, resources, claims and access), and activities. In this study, it pertains to how Hani households make a living.

**Livelihood adaptation** refers to households actively utilizing their livelihood assets to carry out livelihood activities in response to changes in their local context. Local livelihood adaptation is a continuous process, as contextual changes are ongoing. In this study, the term refers to the Hani people continually adjusting their livelihood activities in response to changes in their circumstances.

**Cash crop** describes crops planted by farmers primarily for sale and the resulting revenue. This is in contrast to subsistence crops, which are mainly used for farmers' self-consumption (such as food crops). In this study, cash crops include tea and other cash-earning crops cultivated by the Hani people.

**Swidden** refers to the rotational farming system practiced by the Hani minority. Following local customs, they select a forest area, cut and burn trees to add fertility to the soil, and plant crops for 2-3 years until the soil loses fertility. They then harvest other plants for the next 7-10 years as a fallow period. Afterward, they allow the land to reforest and shift to another forest area for a new cycle of cultivation. This system is also known as shifting cultivation or slash and burn.

**Capability** is based on Sen's capability approach, which defines it as the ability to perform certain basic functions and encompasses what a person is capable of doing and being. Examples include being adequately nourished, comfortably clothed, avoiding preventable morbidity and mortality, leading a life without shame, being able to visit and entertain friends, and staying informed about events and discussions (Sen, *ibid*). In this study, capability refers to the Hani people's ability to perform tasks and choose a way of life aligned with their values.

**Asset** refers to resources under the control of entities such as Hani households, which they use as inputs in their livelihood activities to achieve particular livelihood outcomes. In this study, assets are classified into five categories: human, natural, physical, financial, and social assets, as defined by the DFID livelihood framework.

**Institution** refers to the rules of the game regulating the actions, interactions among individuals, and the relationship between individuals and their environment. Institutions can be both formal and informal. In this study, the term institution pertains to the Hani community's regulations, customs, and rules governing their livelihood activities.

**Organization** pertains to a group of individuals collaborating to achieve a common objective or goal. In this study, an organization refers to the Mongsong community organization, primarily composed of local individuals.

**Strategy** denotes proactive actions taken to achieve objectives or goals by investing resources in situations involving uncertainty. This term is commonly used in the business sector, such as a company's competition strategy. In this context, the term refers to the Hani community's livelihood strategy employed deliberately to sustain their way of living.

**External factors** involve factors beyond the control of the Hani community, such as government policies and market trends. These factors continuously exert significant impacts on local livelihood changes.

**Sustainable Livelihood Approach (SLA)** refers to the approach introduced by DFID and serves as the framework for this study on Hani livelihoods.

## CHAPTER 2

### LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

In this chapter, the Sustainable Livelihood Approach (SLA) is thoroughly reviewed in terms of its theoretical foundations, evolutionary frameworks, core concepts, limitations, and potential for re-energizing. Subsequently, relevant studies are summarized, and an SLA-based framework for this study is formulated at the end of this chapter. Before delving into SLA, a brief introduction to traditional minority livelihood studies is provided.

#### Traditional Livelihood

##### 1. Model thinking

Ethnic minorities in China constitute approximately 113.8 million individuals, representing 8.5% of the population. They predominantly reside in the southwest, northwest, and northeast parts of the country, with communities in 11,763 villages (Zheng Yu, 2011). These communities serve as the living spaces and socio-cultural and economic spheres for ethnic minorities, shaping their traditional livelihoods. Consequently, community members' livelihoods exhibit common characteristics.

Through generations residing in these regions, the traditional livelihoods of upland minorities have gradually adapted to the local social and natural environments, resulting in distinct models. Examples of these models include the gather-fish-hunt livelihood model for the Wa, Dulong, Bulang minorities, the pastoral livelihood model for the Tibet and Mongol minorities, the paddy rice cultivation livelihood model for the Dai, Zhuang, Dong, Shui minorities, and the swidden agriculture livelihood model for the Jinpo, Jinuo, and Hani minorities. These models possess unique features and are practiced by community members as their traditional way of life. Moreover, the livelihood models serve as social identities for each upland minority. (Mao et al., 2018)

Chinese ethnologists widely adopt the livelihood model thinking. In his general theory of ethnology, Lin (1997) identified six livelihood models for all minorities,



including upland shifting cultivation, upland farming and pastoralism, upland pastoralism and hunting, lowland paddy rice cultivation, grassland pastoralism, and intensive farming in plain regions. Each livelihood model is characterized by its specific production activities, technologies, and relationships between humans and their environment.

Even though there exists a model for the traditional livelihood of upland minorities, it is important to note that it is not a singular, closed, or simplified model. Rather, several supplemental models coexist, as noted by Zheng Yu (ibid). Each traditional livelihood model may have one primary type and several co-existing sub-livelihood types. For instance, swidden agriculture is the main traditional livelihood of the Hani people. Concurrently, Hani households gather wild vegetables from forests, hunt animals for protein intake, sell tea for salt and other life necessities, among other activities. The traditional livelihood of upland minorities is more complex, generally composed of one main model accompanied by several supplemental models. To survive in harsh conditions, minorities may apply a diversification strategy, adopting various subsistence activities.

This model-centric perspective highlights the main parameters of upland livelihood but may overlook the complex aspects associated with it. In reality, upland minority households allocate their labor to engage in different production activities to maximize benefits or minimize risks.

## **2. Systematic thinking**

Despite the existence of various traditional livelihood models, there are universal characteristics shared among them, as concluded by Mao Shuxin, et al. and Zheng Yu (2015). Firstly, traditional livelihoods are always constrained by their natural environments. For example, upland minorities engage in activities such as gathering, fishing, hunting, pasturing, or farming, depending on the local natural resource base's advantages or disadvantages. The natural conditions may directly determine the type and outcome of local livelihoods. Secondly, traditional livelihoods are environmentally friendly. To maintain a long-term secure livelihood, minorities are typically sensitive to their environmental conditions, adjusting their livelihood practices

to ensure a healthier natural environment. Preserving environmental health remains a priority when making a living. Thirdly, reciprocity mechanisms within the community guarantee the livelihood security of all community members. Communities are organized by clan-based blood-relative systems or place-based social systems. The systematic relationships among members enable the community to establish rules for managing common affairs, including the moral obligation to support one another within the community.

These common characteristics of traditional livelihoods indicate that the livelihood of upland minorities is not solely an economic phenomenon. Traditional livelihoods are integrated with elements of the local natural environment and social, cultural aspects of local life. Investigating the case of the Hezhe minority in northeastern China, Zhuang and Jin (2009) demonstrate that Hezhe fishing livelihoods are tightly integrated with their natural environment and the socio-cultural lives of Hezhe people. Living beside the water catchments of three rivers (Tong River, Fuyuan River, and Rao River), the Hezhe people's fishing skills and knowledge have developed over generations. The belief system respecting river and its bio-system spiritual family balances the material needs of Hezhe families and the fish growth in the rivers. Many other cases can be found in ethnographic literature, such as Yin Shaoting's fundamental study on the swidden agriculture of the Jinuo minority in Xishuangbanna. He found that the swidden system, as a cultural ecological system, balances both the material and spiritual needs of Jinuo groups. Jinuo households practice swidden agriculture under the guidance of community headmen, farming etiquette, and spiritual worship, which are integrated as a whole in Jinuo society (Yin, 2008).

The integrated view of livelihood posits traditional livelihood as inseparable from its social and cultural systems. How people make a living depends on their access to natural resources. Local communities have either formal or informal rules to coordinate, constrain, or motivate their members' access to local natural resources. This coordination, constraint, or motivation power is symbolically formed by their supernatural beliefs. To avoid the over-utilization of local natural resources, minority communities have taboos in nature. This is the topic termed "sacred ecology" utilized by cultural ecologists (Baerkes, 1999).

## Household Livelihood

Hani traditional livelihood studies adopt both model and systematic thinking approaches. Model thinking posits the Hani minority group as a typical upland shifting cultivator whose livelihood traditionally depends on swidden agriculture in the upland regions of Xishuangbanna. However, systematic thinking emphasizes that swidden is not merely a way to produce material for Hani subsistence needs, but also a system that links local cultural practices, social institutions, resource utilization, and conservation. Consequently, community social-cultural institutions are closely related to local livelihood activities.

In the study of traditional upland minority livelihoods, the community, rather than individual households, serves as the unit of analysis. Theories from ecological anthropology have been applied to investigate how minority groups organize their members for production and reproduction activities under the coordination of social-cultural institutions. Through adaptation to their natural environment, communities establish internal culture and social institutions that functionally balance the relationships among people and between people and nature. This represents the typical idea of structural functionalism and cultural adaptation theory.

However, after the implementation of the household responsibility system in China for several decades, minority traditions have changed rapidly. Even though community institutions still exist, individualism is obviously observed in every highland minority in China today. As Li (2018) concluded, minorities in China are in the ongoing process of individualization. In contrast to the traditional focus on the community, individualization has become the center of local livelihood under China's modernization, prompting a shift toward households as the unit of livelihood analysis.

Traditionally, communities were emphasized for managing common natural resources and coordinating production, exchange, and distribution activities for all members. However, the rise of individualization has disrupted communal systems, incentivizing individuals, primarily households, to become the essential units of livelihood. As a result, households have increasingly attracted scholarly attention for development studies. For instance, examining how low-income households (the poor)

capture opportunities for their livelihood strategies to improve their living standards has been a significant aspect of poverty research.

Before the emergence of the livelihood concept, Chinese scholars studied the notion of households in relation to anthropology, demography, sociology, and economics. In anthropological study, a household represents a member of a community who is the unit of local cultural production and reproduction, such as “incense and fire” in the Chinese kinship system (Fei, 1939). Demography views households as units of population, with the majority of these studies focusing on population planning in China during the 1980s. Sociology perceives households as units of social production and reproduction, with research interests in inter-generational responsibilities, property inheritance, elderly care, or sexual relationships in marriage. The livelihood concept of a household combines aspects of production and consumption. On the one hand, households organize their members (as labor) to engage in production and earn benefits. On the other hand, they use the benefits to provide for their members’ needs, such as food, housing, education, health, social activities, and so on. In essence, households function as systems that organize their members as a cohesive unit to share expenses and benefits. Consequently, household data is vital for statistical analysis on livelihood topics, including household income, consumption, and more.

Livelihood studies on households have a long history, dating back to the work of Chayanov (1966), who established a framework to comprehend Russian peasant households in the early twentieth century. Chayanov found that in the context of abundant land and limited market access for agricultural products and labor, the amount of land a household cultivates depends on the balance between labor availability and consumption demand. Newly formed households face labor limitations on farming, resulting in less cultivated land. However, households may expand their cultivation as their children become adult laborers capable of participating in farming work. As parents age and adult children form their own households, labor and consumption decrease, causing the original household to cultivate less land. This framework views households as balanced units of production and consumption that adjust according to household size and lifecycle changes.

Households might invest intensive labor in their limited farmland when their populations increase and no other lands are available, even if the marginal benefit of labor input is negative (Huang et al., 2012).

Households operating under limited market conditions, either for labor or land, have been the focus of much research. The Rational Model theory proposed by Schultz and Popkin (Hou et al., 2011) is a popular approach to understanding households in a market economy. They proposed that households behave as economic rational actors, always seeking to maximize their benefits, similar to business companies in marketable situations. In contrast to this model, the Moral Economy approach, advocated by Scott (1998), argues that peasant households prioritize risk avoidance when faced with significant uncertainty.

In the context of a market economy, understanding how households make strategic decisions to implement livelihood activities has become a new research focus. The representative perspective in this area is Neo-institutional Economics, which posits that rural households may face problems such as high transaction costs, asymmetric market information, and market price uncertainty. These factors can hinder farmer households' participation in the market (Hou and He, *ibid*). Consequently, identifying ways to support households in joining the market smoothly and benefit from it has become a prevalent issue.

The Chinese government has adopted the ideology of a socialist market economy, with the recognition of the fundamental function of the market in allocating resources. Rural households are increasingly participating in the market economy, not only in product markets but also in factor markets, such as land, labor, and finance.

Becker's household economics model is based on three assumptions: maximizing behavior, market equilibrium, and stable preferences. This model assumes that households maximize utility derived from basic preferences that do not change rapidly over time, and that the behavior of different households is coordinated by explicit and implicit markets (Robert and Pollak, 2003). In contrast to the rational choice approach's principle, the idea of situates households in a socialized market environment and extends the scope of household livelihood discussions from a purely

economic perspective to a more complex ideology, such as the Sustainable Livelihood Approach (SLA).

## Sustainable Livelihood Approach

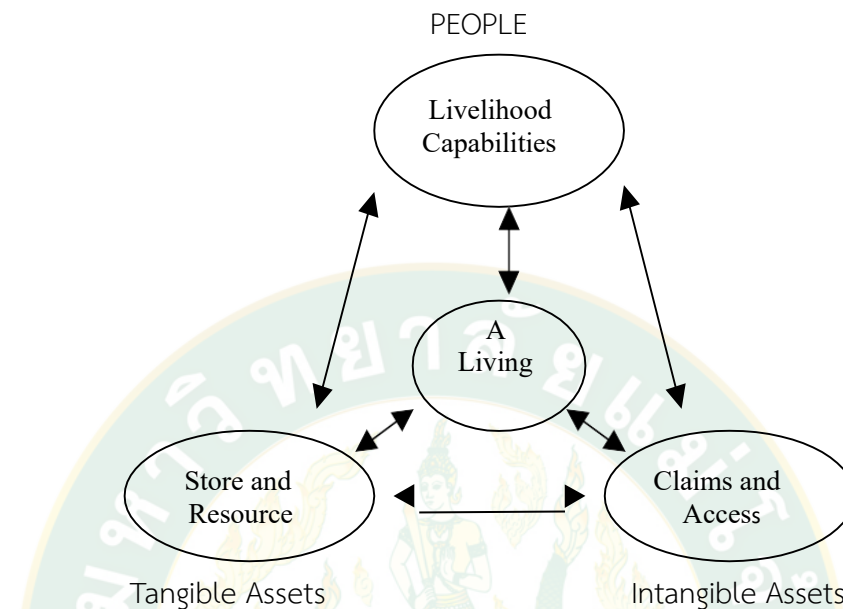
### 1. General background and the frameworks of SLA

Livelihood has been central to rural development studies and program interventions for decades. Scoones (2009) noted that many basic searches of development literature will discover numerous references to livelihood approaches, perspectives, methods, and frameworks. SLA was introduced in the 1990s as an alternative to the modernization theory of economists, the macro-structural perspective of dependency, and the neo-Marxism of the 1970s and 1980s. This approach shifts the study focus from macro to micro by adopting a range of principles including village studies, household economics, gender analyses, farming systems research, agro-ecosystem analysis, rapid and participatory appraisal, political ecology, and the actor-oriented approach. (Scoones, 2009; Haan and Zoomers, 2005)

Conway and Chambers (1992) provided the foundational work on livelihood, offering a basic definition of a livelihood as “a composition of the capabilities, assets, and activities required for a means of living.” In conceptualizing livelihood, they borrowed the concept of capability from Amartya Sen. For Sen, capability refers to “the ability to perform certain basic functions, to what a person is capable of doing and being”. In the context of livelihood, this translates into individuals being able to identify and make use of livelihood opportunities, cope with stress and shocks, and adapt to macro trends of environmental change.

People’s livelihood capabilities depend on the assets they use to make a living. Conway and Chambers identified two types of livelihood assets: tangible and intangible assets. Tangible assets include stores (e.g., food stock, store of value, cash savings, etc.) and resources (e.g., land, water, livestock, equipment, tools, etc.), while intangible assets comprise claims and access. Claims refer to demands and appeals that can be made for material, moral, or other practical support, while access represents the

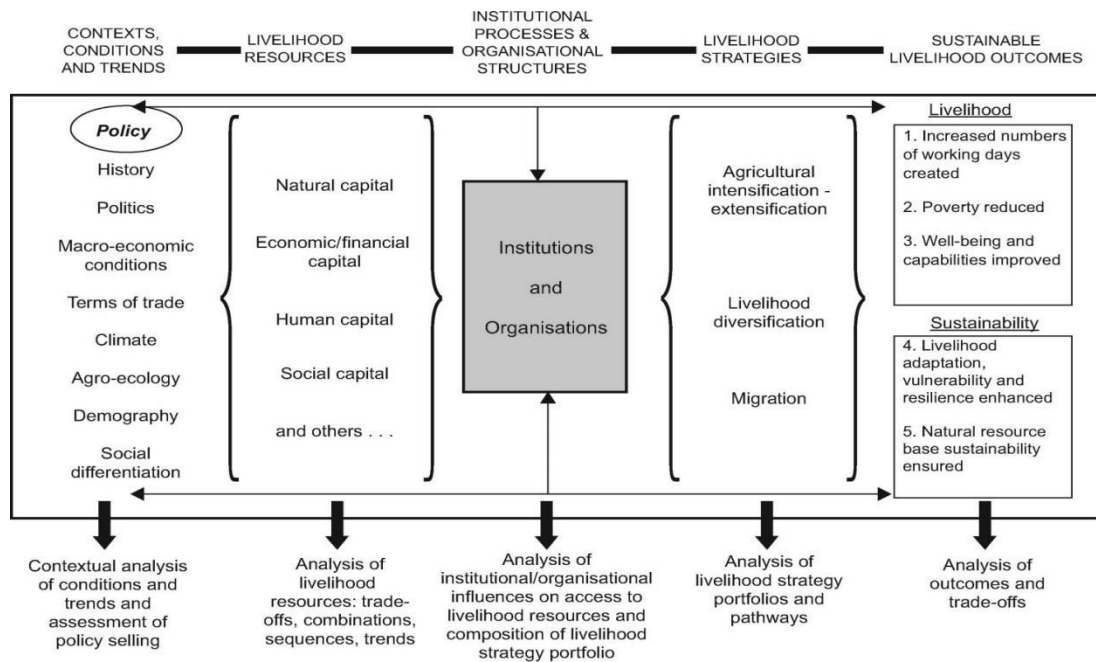
opportunity to utilize a resource in practice. Their framework for describing livelihood is illustrated in Figure 2.



**Figure 2** Livelihood Framework of Conway and Chambers (1992)

Building upon the foundational work of Conway and Chambers, Scoones (1998) developed a more comprehensive framework to analyze livelihood consequently (refer to Figure 2). This framework encompasses five aspects of sustainable livelihood analysis by integrating the basic elements:

*“Given a particular **context** (of policy setting, politics, history, agroecology, and socio-economic conditions), what combination of **livelihood resources** (different types of capital) result in the ability to follow what combination of **livelihood strategies** (agricultural intensification/ extensification, livelihood diversification and migration) with what **outcomes**? Of particular interest in this framework are the **institutional processes** (embedded in the matrix of formal and informal institutions and organizations) which mediate the ability to carry out such strategies and achieve (or not) such outcomes.”*



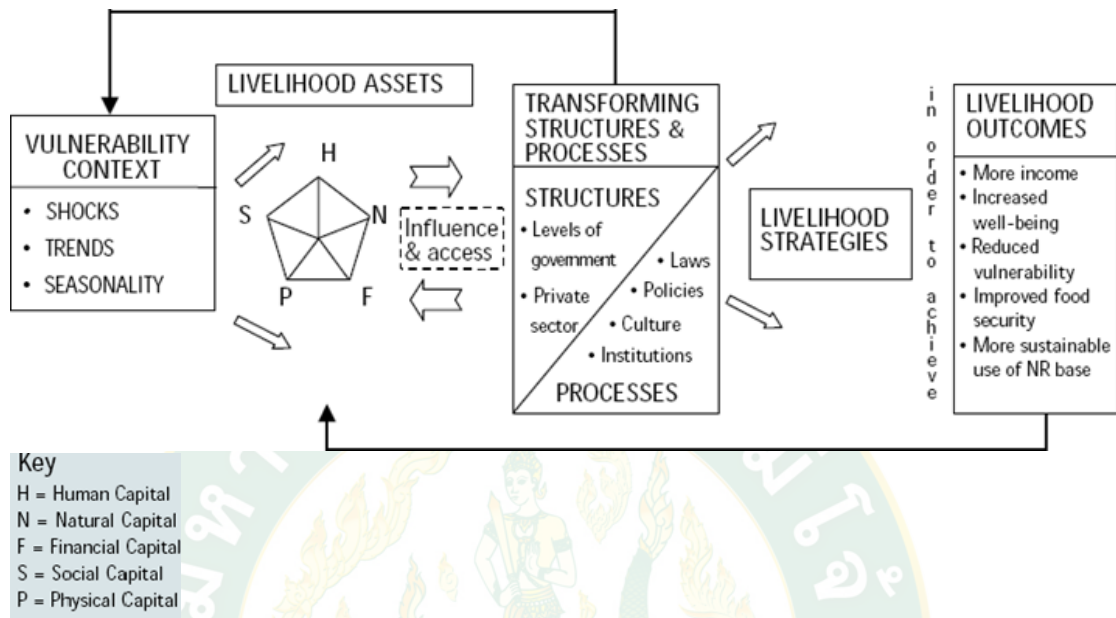
**Figure 3** Sustainable Livelihood Framework of Ian Scoones (1998)

Scoones's framework includes five significant components (represented by five large arrows) such as context, livelihood resource, livelihood strategy, livelihood outcome, and institutional process. All these components are crucial areas for livelihood analysis. Within this framework, researchers can easily recognize the economic metaphor of input (livelihood resource), output (livelihood strategies), and outcome (livelihood and sustainability). Consequently, numerous quantitative analyses have been conducted by scholars with economic backgrounds to examine the cause-and-effect relationship between livelihood capital and livelihood outputs or outcomes. However, as noted by Scoones himself, these types of analyses often overlook the broader social and institutional dimensions of livelihood, which he positioned at the core (middle) of his framework (Scoones, 2009).

Various SAL frameworks have been developed by international funding agencies, such as UNDP, SIDA, CARE, and DFID. Among them, the DFID's framework has been widely accepted in the international academic community. The DFID's SLA framework (see Figure 3) is designed to serve as an analytic structure that facilitates a comprehensive and systematic understanding of the key factors that constrain or



enhance livelihood opportunities, and to illustrate how they relate to one another. (DFID, 2000)



**Figure 4** Sustainable Livelihood Framework of DFID

The DFID SLA Framework is structured around five types of livelihood assets, graphically represented as a pentagon to illustrate their interconnections and the notion that livelihoods depend on a combination of assets from various categories, rather than just a single one. A crucial part of the analysis involves determining people's access to different types of assets (physical, human, financial, natural, and social) and their ability to utilize these assets productively. The framework provides a means of assessing how organizations and institutions shape livelihoods, both by determining who gains access to which type of asset and by defining the range of livelihood strategies that are available and appealing to people (Carney, 1998).

DFID's SLA is not a "programming framework"; instead, it represents a way of thinking about poverty that focuses on the livelihoods of the poor. By analyzing these livelihoods, the framework can identify issues or areas that need to be addressed to reduce poverty. For DFID, there are two main areas that require effective contributions: first, direct support for assets and second, support for improving the structures and

processes that influence access to assets and available livelihood strategies. The rationale behind emphasizing these two areas is mainly practical – by offering individuals better access to assets, they can have more ability to influence structures and processes, thus making these structures more responsive to their needs.

## 2. Key concepts in SLA framework

As described by Scoones (1998) in his SLA framework, there are five key elements to conceptualizing a livelihood: inputs (livelihood assets), outputs (livelihood strategies), and outcomes, which together form an input-output-outcome flow cycle. The contextual trends function as the background, while institutional processes provide the broader social dimensions of local livelihoods. Each element can be conceptualized and operationalized for further analysis:

### 1) Livelihood asset

Livelihood assets primarily consist of household variables that can be used for production or to obtain market benefits, as illustrated in the economic metaphor. The DFID SLA framework has identified five types of assets: natural (e.g., land, forests, water), physical (e.g., production equipment, machinery, infrastructure), financial (e.g., cash, savings, credit), human (e.g., labor, health level, education), and social (e.g., networks, relationships, associations). These distinct assets can be combined or traded off in the pursuit of various livelihood strategies.

Li and Gao (2018) conducted the first quantitative study on livelihood assets in China by establishing measurement indicators for each asset type within the SLA framework in the Chinese context. Human assets (HA) have three indicators: the total labor score of a household, adult male labor presence, and the education level of the adult male labor. Li et al. (2009) introduced additional indicators to measure human assets, such as household size, age, health, and skill level of the primary labor. Cao et al. (2017) also consider skill level as a crucial indicator of human assets. Other researchers, including Xi Chao et al. (2018) and Xu et al. (2015), have conducted similar work. Collectively, these studies suggest that labor quantity, power, education level, health level, and skill level are primary indicators of human assets.

**Natural asset (NA)** typically refers to natural resources utilized as inputs for production. For agricultural households, land is the most important natural resource; thus, indicators of natural assets could include land area per household or capital (Li Xiaoyun, et al., *ibid*). Forests also play a significant role in local livelihoods, making forest land area another potential indicator of natural assets (Li jie, et al., *ibid*; Cao Shuying, et al., *ibid*). Xi Chao et al. (2018) identified several types of land in rural Yunnan, including paddy fields, sloping land, and forest land, all of which serve as natural assets to Yunnan farmers. For these individuals, land quality is also an important indicator of natural assets.

**Physical asset (PA)** refers to the essential equipment or infrastructure utilized for human living and production. Li Xiaoyun et al. categorized physical assets into different types. These types encompass the quality of household shelter or housing, durable equipment such as refrigerators, televisions, and washing machines, as well as productive equipment including tractors, motorcycles, productive machines, and livestock power. Additionally, public facilities that enable households to access public services (e.g., healthcare, education, training, meetings) or markets (e.g., roads, express, internet) have become increasingly important in contemporary society, which has been overlooked in previous studies.

**Financial asset (FA)** refers to the channels a household has for obtaining financial support. Examples include household income and savings, loan opportunities from banking institutions, and borrowing from relatives or friends (Li Xiaoyun, et al., *ibid*). Li Jie et al. also considered the valuable property of deposits (such as cows, goats, bees, etc.) as a financial asset. This type of property can serve as a form of savings that can be sold for cash when needed by the household.

In the framework of sustainable livelihoods, **Social Asset (SA)** is defined within the framework of sustainable livelihoods as the social resources that people utilize to achieve their livelihood objectives. SA comprises three interrelated components: 1) social networks and organizations (e.g., religious organizations, friends and relatives, family, etc.), 2) vertical relationships (with superiors or leaders), and 3) horizontal relationships (with people who share common interests). The function of social assets

is to enhance individuals' ability to trust and collaborate with one another and to connect with responsive institutions that address their needs. Indicators of social asset may include the number of networks (or organizations, associations, etc.) and key relationships (such as cadre, business partners, etc.). Indirect indicators, such as mobile expenses or annual gifts, have also been utilized to measure social assets. (Li jie, et al., *ibid*)

Livelihood asset research mainly focuses on exploring the correlation between livelihood strategies (e.g., farming, non-farming, or off-farming) and household asset composition. For example, households with more natural assets may prefer farming, while households with more human assets may opt for migrant work. Some studies aim to describe the typical characteristics (usually a shortage) of household assets in specific areas, such as poverty-stricken regions of China (e.g. Cai Jie, et al., *ibid*; Xu Dingde, et al., *ibid*; Zhang (2011).

As explained earlier, each asset serves both as for household livelihood activities and as an stemming from livelihood benefits. For instance, land can be utilized to grow crops, and later, if desired, a household can invest in expanding the land area or improve its quality, thus increasing the land's value as an asset. A more complex issue arises when assets can be sequenced, substituted, clustered, and traded-off among them (Scoones, 1998). According to Scoones, a crucial study would be to analyze how different livelihood assets are sequenced and combined to pursue various livelihood strategies within a dynamic and historical context. Therefore, an asset should not be viewed as a static possession but rather a dynamic variable that is continuously manipulated by households.

Expanding upon the concept of assets, Bebbington (1999) provided an insightful understanding of assets as vehicles for not only instrumental action (making a living) but also hermeneutic action (making living meaningful) and emancipatory action (challenging the structure under which one makes a living). Assets are not solely contributors allowing survival, adaptation, and poverty alleviation; they also form the basis of an agent's power to act and to reproduce, challenge, or change the rules governing control. This perspective adds social and political dimensions to livelihood research, moving beyond a simplistic economic approach.

## 2) Livelihood strategy

Scoones (1998) initially identified four livelihood strategies in his original framework, consisting of agricultural intensification, extensification, diversification, and migration. Agricultural intensification can be either capital-led or labor-led, while diversification involves developing a wide income-earning portfolio in response to risk, shock, or stress. Migration refers to a household's choice to alleviate population pressure on local resources or extend income sources from other sectors rather than relying solely on farming. Zuo and Wang (2011) applied this categorization of livelihood strategies in the context of China and generated policy suggestions to support each specific livelihood strategy.

Zinda and Zhiming (2018) investigated the livelihood strategies in upland China (Yunnan) and divided local livelihood strategies into four types: small diversifying, small on-farm specialized, large diversifying, and deactivating. They found that the choice of strategy is dependent on the size of a household's land area and the stage of the household's lifecycle. Farming constitutes the starting point for rural livelihood transitions. From there, it may shift to off-farm income, which depends on wage-based labor or exchanging labor on other farms, or non-farm income, which is not dependent on agriculture (e.g., migration, business, or salary) (Ellis, 1998). Furthermore, farming can be categorized into pure subsistence, cash crop, or a combination of both. People's livelihoods may depend on farming, livestock, or other sources. However, a standardized classification for livelihood strategies does not yet exist (Peng et al., 2018).

Zoomers (1998) distinguishes four kinds of livelihood strategies in the Andes: accumulation, consolidation, compensatory, and security. Accumulation strategies are generally adopted by newly married families seeking to accumulate capital for future improvement. Upon achieving a level of upward mobility, wealthier households may employ consolidation strategies to stabilize their well-being. Compensatory strategies are favored by farmers coping with sudden shocks that may result in downward social mobility. Security strategies are used by those living at high altitudes where life is less secure due to ecological factors. Zoomers cautions that these categories should not be perceived as fixed, but rather flexible. Any given strategy should be viewed as a stage rather than a structural category.

In conclusion, the concept of livelihood strategy is localized and lacks a standardized definition for universal use. A livelihood strategy comprises a cluster of life-sustaining activities, which are dynamic and closely tied to a household's specific asset portfolio and lifecycle stage.

### **3) Exogenous context**

Within the SLA framework of DFID, the context is divided into three aspects: shock, trend, and seasonality. Scoones (1998) provides an extensive list of contextual factors, including policy, history, politics, macro-economic conditions, terms of trade, climate, agro-ecology, demography, and social differentiation. The trend and shock divisions of the context are more frequently employed by scholars. Using this categorization, further differentiation has been observed in the cropping and adaptation strategies found in the literature on livelihood vulnerability and resilience. Cropping generally refers to a farmer's response to temporary shocks, while adaptation is associated with long-term trends (Davies, 1996).

Cramb (2009) identified several external trends that significantly impact the livelihood choices of swidden farmers in Southeast Asia. These key external trends can be categorized into three main aspects: 1) demographic change, which includes local population growth, decline, and movement that may lead to the (de)intensification of swidden farming practices; 2) expansion of cash crop markets (such as rubber, cocoa, and paper) and estates, causing a transformation in swidden farming from being integral to partial and eventually to demise (however, this process may not always be linear and could return); 3) complex political, social, and cultural trends that affect significant aspects of upland life, such as regulatory control over local environments, education, religion, identity, and values. These changes stem from the territorial policies of central governments, which are implemented under various forms, such as outright prohibition, prohibition without a permit, or prohibition in certain classes of land, and tenure-related disincentives (Peluso and Vandergeest, 2001). Moreover, the modern education system, mass media, and consumer markets contribute to the devaluation of swidden farming, thereby influencing the younger generation's willingness to engage in such practices.

Trends and shocks represent exogenous contexts beyond local control. People respond to these contexts through passive or active actions based on their perspectives. Different trends and shocks can elicit various responses, such as avoidance, re-partitioning, resistance, or tolerance mechanisms (Payne et al., 1994). These trends and shocks drive local livelihood transformation, presenting new opportunities for adaptation or constraining access to livelihood assets, ultimately affecting people's ability to improve their lives.

#### **4) Livelihood outcome**

Scoones (1998) and Ellis (1998) conceptualized two types of livelihood outcomes: livelihood security and environmental sustainability. While the DFID SLA framework covers more aspects, these two categories still encompass the majority of relevant concerns. Livelihood security encompasses income, nutrition, food security, and well-being, while environmental outcomes focus on natural resource-based concerns such as soil quality, forest health, water resources, and biodiversity.

These outcomes can be viewed as both ends and means of livelihoods. For instance, income represents a livelihood's end-goal but can also be reinvested into financial or physical assets. Nutrition is the end of a livelihood, but adequate sustenance also supports the human asset-building required for the next livelihood. Similarly, a sustainable environment is an end-goal for livelihoods, but a healthy environment also provides natural assets necessary for future livelihoods. A livelihood, in its simplest sense, is a means of gaining a living, yet it also integrates ends and means (Chambers & Conway, *ibid*).

#### **5) Institutional Process**

In his framework of livelihood, Scoones (1998) posits institutions at the core of the structure. According to him, institutions serve as a mediating mechanism that connects livelihood assets, strategies, and outcomes. Institutional processes provide the social and political dimension to livelihood, taking into account socio-cultural and political processes that elucidate how diverse asset inputs relate to strategies and

outcomes. A comprehensive understanding of institutions can be derived from sociology and anthropology.

Ellis (2000) distinguishes the concept of institutions from organizations (as fixed structures) and social relations. For him, social relations encompass aspects such as gender, caste, class, age, and so on. Organizations refer to groups of individuals bound by the purpose of achieving specific objectives, such as government departments. Institutions comprise both formal (e.g., laws) and informal rules (e.g., customs). Giddens (1979) views institutions as “regularized practices or patterns of behavior structured by rules and norms of society” that exhibit persistent and widespread use.

Early in Chambers and Conway’s livelihood framework, they categorize assets into two types: tangible and intangible. Intangible assets include claims and access. This thinking emphasizes that assets are not only what people *should have*, but also what people *can have*, drawing inspiration from Sen’s entitlement approach. Amartya Sen developed this approach to explain why people may starve amidst food abundance due to a collapse in their means of command over food. Instead of focusing on aggregate food availability, he addresses the fundamental issue of how specific individuals and groups of people gain access to and control over food. The crux of this scarcity issue is that people do not *having* enough, rather than there not *being* enough food. Sen’s explanation employs the entitlement approach, referring to the range of possibilities that people can access, distinct from the rights they may legally have. In Sen’s framework, entitlements represent “the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he or she faces.” (Leach et al., 1999)

Building on Sen’s entitlement framework, Leach et al. (1999) propose an environmental entitlement framework utilizing three key concepts: endowments, entitlements, and capabilities. Endowments refer to the rights and resources people possess, entitlements pertain to the alternative sets of goods and services that people can legitimately access, and capabilities encompass what individuals can achieve with their entitlements. The mapping of endowments and entitlements illustrates how people access these endowments or entitlements. Endowments denote rights in



principle, while entitlements represent what one actually receives. (Haan and Zoomers, 2005)

Institutions play a pivotal role in shaping the processes of endowment and entitlement mapping. Within the context of a livelihood framework, institutions mediate people's access to livelihood assets and consequently influence their livelihood strategies. Analyzing access to assets is essential for understanding not only how people cope with material poverty by making a living, but also how their perceptions of well-being and poverty relate to their livelihood choices and strategies. Furthermore, this analysis reveals how individuals possess the capacity to improve their quality of life and confront the social conditions that generate poverty (Bebbington, 1999).

Concurrently, institutions are continuously reaffirmed and restructured through feedback mechanisms. This idea stems from the actor-oriented approach, which critiques the structure and structural-functionalist perspectives by emphasizing actors, actions, and agency (Long and Long, 1992). From this perspective, communities are not seen as static, rule-bound entities; rather, they are composed of individuals who actively monitor, interpret, and shape surrounding institutions. Institutions emerge as products of people's practices and actions, both intentional and unintended. Consequently, institutions shape people's actions, not through rigid determination, but by offering flexible orientation points that may either constrain or enable possibilities. While some routinized actions serve to reproduce institutions, others demonstrate agency, altering systems and potentially creating new rules over time (Bebbington, 1999).

The five key concepts related to the five components of the livelihood framework have been reviewed in the previous sections. The development of the livelihood framework employs an economic metaphor of input-output-outcome, which is easily recognized by economists. The five livelihood assets can be defined as the resource inputs for livelihoods. Rural households choose their livelihood strategies based on the combination and portfolio of these assets in response to external situations. Through the implementation of these strategies, reasonable livelihood

outcomes can be achieved, such as the improvement of income, nutrition, quality of life, and environment-related aspects (Ellis, 1998).

The institutional processes in the livelihood framework emphasize the socio-cultural and political dimensions of livelihood, as pointed out by Scoones (2009). These processes explain *how* and *why* diverse assets are accessed by households, and how they are integrated into their strategies, ultimately resulting in their livelihood outcomes. It is subject to power and politics, necessitating an in-depth qualitative understanding of institutions.

### 3. Re-energize SLA

Livelihood encapsulates the idea of individuals striving to make a living by attempting to meet their various consumption and economic necessities, coping with uncertainties, and responding to new opportunities. Concurrently, livelihood is also the diverse values of life chosen by individuals (Long, 1997). In this definition, the understanding of livelihood extends beyond the economic or material objectives of life. Wallman (1984) echoes this sentiment, stating that “livelihood is never just a matter of finding or making shelter; it is equally a matter of ownership and circulation of information, management of skills and relationships, and affirmation of personal significance and group identity. The tasks of meeting obligations, ensuring security, establishing identity and status, and organizing time are as crucial to livelihood as bread and shelter”.

Livelihood encompasses both material and non-material aspects of well-being. The livelihoods approach appreciates the importance of viewing livelihood as a dynamic and holistic concept. This approach goes beyond livelihood outcomes and includes a variety of assets upon which the poor rely to shape their livelihoods, such as conventional assets like land and equipment, in addition to human and social assets.

Haan and Zoomers (ibid.) criticize that although transforming structures, mediating processes, and institutions appear in all livelihood frameworks, there tends to be an inclination within livelihood studies to downplay these institutional features and to focus on assets and outcomes. A majority of these studies emphasize

correlational analyses between livelihood assets, strategies, and outcomes using mathematical models, ignoring politics and power dynamics. Such a simplistic approach contributes to the livelihood framework's decreased prominence today compared to a decade ago (Scoones, 2009).

Despite the criticisms and weaknesses of the livelihood approach, Scoones (2009) identifies four recurrent failings. First, the livelihood approach does not adequately address the processes of economic globalization; it tends to focus on local issues at the expense of engaging with broader global markets and political themes. Second, the approach often neglects the vital roles of power and politics in shaping livelihoods, resulting in a lack of intellectual articulation with both mainstream political science governance debates and radical agrarian change discussions. Third, livelihood studies often focus on coping with immediate shocks and stresses, neglecting long-term adaptation. Lastly, the livelihood approach fails to thoroughly consider long-term shifts in rural economies and broader questions pertaining to agrarian change.

Scoones (2009) emphasizes the critical need to integrate power and politics in advancing the livelihood approach, as these aspects are crucial for rural development perspectives. He points out that the livelihood approach has maintained a divide between micro-level and macro-level structures by adhering to the classic structure-agency axis. Scoones suggests that for the livelihood approach to evolve, it must examine both structure and agency, along with the diverse micro- and macro-processes that create opportunities and constraints concurrently. Although the livelihood approach excels in addressing local-level complexities, the challenge lies in linking place-based analyses with broader scales to overcome past inadequacies. An effective future livelihood approach would remain rooted in place and context, while examining the connections between local and broader contexts (even on a global scale). To achieve this, a comprehensive understanding of these connections and the underlying social and political processes is necessary.

Scoones (2009) also contends that studies on livelihood adaptation as a response to long-term trends and changes are required, as opposed to focusing exclusively on local coping mechanisms for short-term shocks and stresses. A positive outlook on local coping abilities under immediate pressures might overlook long-term

shifts that could undermine livelihoods in more profound ways. Understanding local systematic transformations resulting from long-term impacts of secular changes is essential, as it can reveal dramatic reconfiguration of local agrarian systems. The following sections highlight relevant studies in this context.

### Related Studies

In the mid-1990s, international development institutions and non-governmental organizations adopted the SLA to address rural poverty and promote sustainable rural development. Consequently, numerous practical implementation papers on SLA were published. SLA was introduced in China later, around the late 1990s, through international agencies implementing development projects in the country and scholars with an international background.

Researchers such as Li Bing, Li Xiaoyun, Zou Ting, Su Fang, Xu Zhongmin, and Sang Haiyang have examined various SLA frameworks and introduced the primary approaches to China. These scholars view SLA as a valuable platform that offers a comprehensive checklist of vital issues in rural development and poverty alleviation. The framework focuses on key elements and processes of livelihood, emphasizing how external factors (e.g., environmental policies) can restrict local access to land, forest, and water resources (livelihood natural assets), shaping the types of local livelihood strategies and ultimately leading to varied livelihood outcomes. These outcomes then feedback into households' asset holdings and access, influencing the next round of livelihood formulation.

Vulnerability analysis is an essential aspect of livelihood studies, as livelihoods are susceptible when households encounter natural disasters and lose assets. The livelihood of vulnerable households depends on their ability to cope with disasters and recover from their impacts. A household's asset profile serves as the basis for its strategic choices, with livelihood strategies and risk environments acting as two interconnected factors. In the SLA framework, there are five livelihood assets: natural (NA), financial (FA), physical (PA), human (HA), and social (SA) assets. Under vulnerable conditions, these assets can be substituted or traded off among them as needed to

address disasters effectively. Consequently, the quantity and composition of assets determine a household's capacity to withstand vulnerable environments (Su Fang, Xu Zhongmin, and Sang Haiyang).

Numerous quantitative studies have been conducted to investigate livelihood assets (LA) in various regions of China (e.g. Cao et al., 2017; Xu et al., 2008; Li et al., 2009; Yang and Zhao, 2009; Zhou & Zhao, 2018). Yang and Zhao observed that households' LAs remain vulnerable in the reservoir catchment of the South Water to North System, where residents continue to experience subsistence living rather than improved living standards. Li Jie et al. found that in the program area of "Grain for Green," non-farming and off-farming households possess a more diverse range of LAs compared to pure-farming households. Consequently, these households have greater opportunities to diversify their livelihood strategies, reducing the risks posed to their livelihoods and lessening their dependence on the local natural environment.

Cao Shuying et al. conducted an analysis of households in the mountainous regions of Zhejiang province, concluding that while farming-dependent households maintain considerable assets in natural and physical assets (NA and PA), their financial assets (FA) are limited. In contrast, non-farming households possess a greater amount of PA and human assets (HA), but fewer NA. Xu Peng, Xu Mingkai, and Du Yi sampled 1,000 households across ten counties in Western China, discovering that despite significant differences in LA holdings, a common challenge faced by all households was low HA. Zhou and Zhao conducted a nationwide study, identifying that Northeastern households had the highest LA scores, Central households exhibited an average score, and Western households scored the lowest.

These findings demonstrate that households in different locations may possess varying compositions of LAs (NA, PA, FA, HA, SA) which significantly influence their livelihood strategies. The studies also underscore the importance of anti-poverty programs tailored to regional households' specific assets and capabilities, in order to effectively address poverty and vulnerability.

According to the SLA framework, there are typically four types of household livelihood strategies (LS): agricultural extension/intensification, livelihood diversification, and migration. Within the context of rural China, additional strategies

have been identified, such as pure agriculture, non-agriculture, and hybrid approaches (Liu Enlai et al. ,2015; Zhu and et al.,2016; Li et al., 2017; Su and Zhou, 2017). These quantitative studies on LS primarily examine the static aspect of household livelihoods, utilizing statistical models to analyze the correlation between LA and LS based on data collected at a specific time point. However, these studies tend to overlook the dynamic aspects of livelihood, which also play a crucial role in rural areas (Tang, 2015).

The first dynamic aspect encompasses the marketable exchange of LAs. In most of China's rural areas, markets exist for labor, land, and production equipment. Therefore, household decision-making is not solely dependent on the assets they possess but is also influenced by their ability to access these assets through markets. The second dynamic aspect relates to the variability of LS in response to changes in household lifecycle. As a household undergoes structural changes, it may adopt different strategies to cater to the varying needs of its members, such as providing nutrition and education for a growing family or preparing for the marriage of adult children. The third dynamic aspect involves the adaptation of households to changing socio-economic situations, as new opportunities may arise with the opening of new markets or businesses, resulting in shifts in livelihood strategies. For instance, Li (2015) observed that tourism in Lijiang has significantly impacted the livelihoods of Naxi villages surrounding the area. These dynamic aspects necessitate a more comprehensive perspective on livelihood than is typically provided by general quantitative research.

The unique livelihood of minorities in a specific upland habitat (distinguished by its natural and social environments) is neither fixed nor isolated, but rather, continuously adapts to the ever-changing circumstances, especially in response to the modernization of China. Owing to the diverse natural and social environments inhabited by different ethnic minorities, the pathways of change vary significantly. Numerous studies have been conducted on this topic in upland China. Li (2016) focused on the Yi minority in Yongsheng (Yunnan) and discovered that their traditional livelihood of rice cultivation had shifted towards a more diversified approach, characterized by migration, business, and livestock husbandry. Qing & Tang (2006) analyzed the Yao minority in Dahua (Guangxi) and recommended that poverty

alleviation policies should place greater emphasis on promoting local livelihood transformation via new technologies. The Yao households' transition from subsistence-based to market-oriented economies requires the adoption of new knowledge related to cash crops and swine raising. The study by Wen (2014) on the Nu minority in Nujiang (Yunnan) found that their closed traditional livelihood system has opened up to a market economy, generating new needs for the Nu people and prompting them to pursue livelihoods focused on "finding money". Yang (2017) studied the De'ang minority in Dehong (Yunnan) and demonstrated that the government-promoted expansion of sugarcane farming in De'ang villages has profoundly altered the local livelihood. This new livelihood presents both increased benefits and heightened market risks. Gao (2010) investigated the Lisu minority residing in cross-border areas between Yunnan and Myanmar, highlighting that a shared cultural identity among the Lisu fosters social trust, facilitating the transformation of Lisu livelihoods via cross-border migration.

Existing research provides valuable insights into our understanding of minority livelihood alterations. However, most scholars focus on explicating the outcomes of these changes, rather than elucidating the dynamic processes underlying these livelihood transformations. Zhou Jianxing and Yu Yuhui (2013), as well as Yan Ning (2009), conducted research on the livelihood dynamics of the Hani minority, utilizing a diachronic method to describe how Hani households actively engage with the market economy. Although their studies effectively detail the processes of change, they lack a comprehensive integration of theory. Detailed observations fail to offer theoretical explanations that elucidate the patterns of livelihood dynamics.

Minority livelihood constitutes a systematic existence. Zheng (2015) posited that this phenomenon encompasses the ways households organize their assets for production, exchange, distribution, and consumption activities, which continually interact with the local social, cultural, and political contexts. Consequently, minority livelihood is deeply intertwined with natural resource regimes, indigenous knowledge, religions, customs, and institutions. In his case study of Dabinglangyuan Village in Yunnan, Cui (2015) demonstrated that the livelihood changes of the Dai people impact not only their household activities but also local institutions. The evolving Dai

institutions guide individuals in adapting to the new life meaning. To the Dai, livelihood encompasses more than mere material (economic) phenomena; it also involves the intangible, interrelated aspects of their culture. Zhuang Shang and Jin Leshan (ibid) observed a similar case within the Hezhe minority, whose livelihood shifted from fishing to farming. This change prompted whole-scale transformations in Hezhe socio-culture aspects, such as food, clothing, housing, production knowledge, customs, natural beliefs, and social relations.

In conclusion, the literature highlights four key points: 1) households' livelihood assets (LA) may differ across geographical regions, household types, and economic statuses, among other factors; 2) households' livelihood strategies (LS) closely correspond to the composition of their LA; 3) most quantitative livelihood studies identify correlations between LS and LA, but overlook the dynamic processes; and 4) dynamic perspectives have been employed in select minority livelihood studies, albeit often lacking in theoretical depth.

There is evidently a need for further research into the dynamic processes of local livelihoods to better comprehend how local Hani households and communities develop strategies to improve their lives amid the modernization trends in China. The SLA framework developed by many scholars in the past can be the inspiration of this study.

### **Conceptual Framework of the Study**

The Sustainable Livelihoods Approach (SLA) framework consists of five elements. These elements employ the input-output-outcome metaphor to conceptualize the household livelihood process, which integrates Livelihood Assets (LA, as input), Livelihood Strategies (LS, as output) and Livelihood Outcomes to provide a holistic understanding of how local households develop their LS through the management and coordination of their LA, ultimately achieving their expected livelihood outcomes. Notably, the outcome is not just the end, but also serves as the means of securing livelihoods. Similarly, income is not only the goal but can also be reinvested into subsequent livelihoods such as financial or physical assets. The



external environment and community institutions comprise the other two elements of the SLA framework, functioning as the context within which households employ their LA and providing socio-cultural and political dimensions to local livelihood processes. These five elements work in tandem as the framework for this livelihood study (see Figure 4).

New livelihoods arise from the impacts of various trends (exogenous variables), which trigger local changes within the broader macro context. Cramb et al. conclude that the main drivers of local swidden livelihood change in the uplands of Southeast Asia are external trends such as new markets, policies and demographic changes. Numerous external factors affect local livelihoods, where Zheng (2015) found two primary factors influencing minority livelihood changes. The first factor is government policy, which is classified into three distinct phases: 1949-1958, 1958-1970 and 1980-2000. Government policies, therefore, significantly impact local settings in various areas, such as land tenure policy in the 1980s, environmental protection policy in the 1990s, and poverty alleviation policy in the 2000s. After 2000, market forces overshadowed policy influences, taking the reins of resource allocation, including labor. Consistent with findings by Yan Ning and Zhou Jianxing and Yu Yuhui, cash crop market trends, such as those for tea, heavily influenced local livelihoods. Consequently, policy and market trends constitute the focal points of external drivers in this study. Other external factors, including climate change and demographic shifts, also impact local livelihoods, but, due to the limited scope of this study, they will not be discussed in depth.

With the emergence of new external impacts, such as policies and market trends, new community institutions are established at the meso level to facilitate the coordination of new livelihood activities. Giddens (1979) posits that, while human actions have the capacity to reproduce structures, rules, and institutions, they also wield the agency to change systems and create new protocols. Community-level institutional redesign or change occurs through interactions amongst community members, perpetuating a cyclic process influenced by the induction of new trends.

Households, as the basic units of local production and consumption, respond to external impacts, triggering micro-level reactions. Households reassess their

livelihood strategies based on their understanding of external trends (e.g., fluctuations in market prices), reconfigure their asset portfolios, and adjust their income expectations and consumption plans. These activities collectively constitute the household livelihood adjustment process in response to external impacts. Livelihood Assets (LA) serve as the inputs for household livelihood activities, encompassing five types of assets: Natural Assets (NA), Physical Assets (PA), Financial Assets (FA), Human Assets (HA), and Social Assets (SA). This study carefully tailored the conceptualization of each asset to local specificities through a participatory approach that consulted local references. For instance, the Hani peoples' NA include land, PA consist of equipment, HA involve working labor, FA incorporate deposits and loans, and SA encompass social relationships.

Scoones (1998) defined four livelihood strategies (LSs): Intensification, extensification, diversification, and migration. Intensification is commonly adopted by minorities for cash cropping, investing more land and labor in cash crop plantations and extending the areas if beneficial. Diversification remains the Hani people's strategy in Mengsong. As noted by Cramb et al. (ibid), households may choose diversified options to reduce the risk posed by cash crop market fluctuations. This is also true for the Hani people. Even though they benefit from tea, they still practice other farming or non-farming activities since they face market risks. Migration in Mengsong is not prevalent; therefore, it falls outside of the framework. The above-listed LSs will be carefully examined to determine how Hani households actively participate in the new market economy, redefining and valuing their assets to support their strategies.

Community institutions coordinate, regulate, and support household livelihood activities. According to Scoones (1998, 2009), institutional processes of livelihood are the centerpiece of livelihood analysis. Leach et al. (ibid) use the concept of "mapping endowment and entitlement" to analyze institutional processes. On one hand, household access to assets is guided by rules (institutions and organizations); on the other hand, households may manipulate the rule-making process through their agency. Li Cuiling (ibid) mentions that individualism has occurred in minority communities, leading to the collapse of shared aspects of their lives. Traditional customs that once

regulated local life as a whole no longer exist. New principles based on economic rationality and self-interest have gradually taken over local interactions.

This framework highlights the systematic interaction among households (micro level), local communities (meso level), and external factors (macro level). As China modernizes, the Hani people have been drawn into this challenging journey. The study carried out in Mengsong using the livelihood framework will deepen our understanding of the multiple situations faced by the local Hani people, how they have adapted, and the outcomes they have achieved. This understanding may contribute to deriving grounded experiences and lessons applicable to other Hani communities and even other upland minorities. Additionally, the study will offer related recommendations to local government authorities who may have a strong interest in supporting the livelihood development of the Hani people.



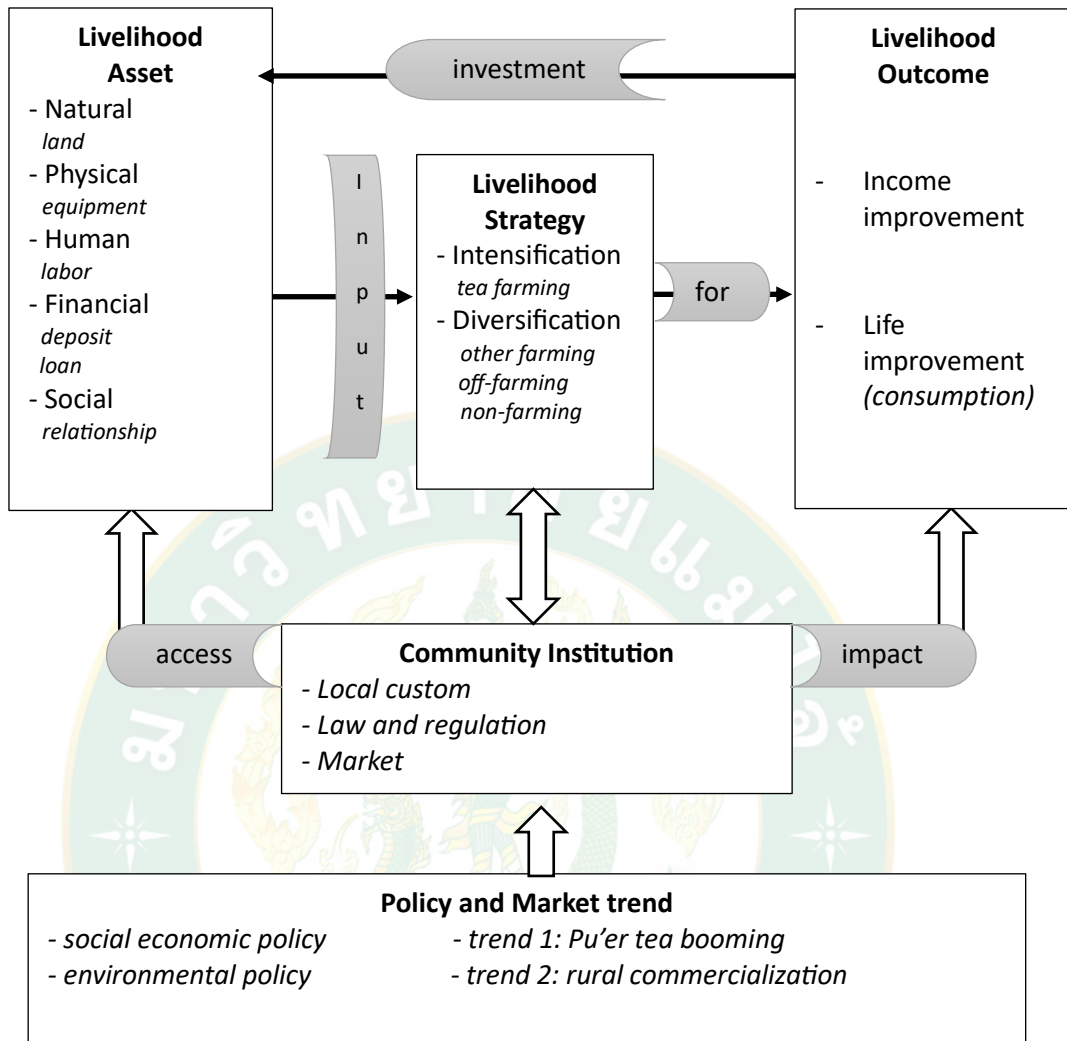


Figure 5 Conceptual Framework

## CHAPTER 3

### RESEARCH METHODOLOGY

This chapter outlines a qualitative research methodology with its philosophical background, considering the research questions and objectives. Furthermore, it provides information about the study's location and the quantitative and qualitative methods used for data collection and analysis.

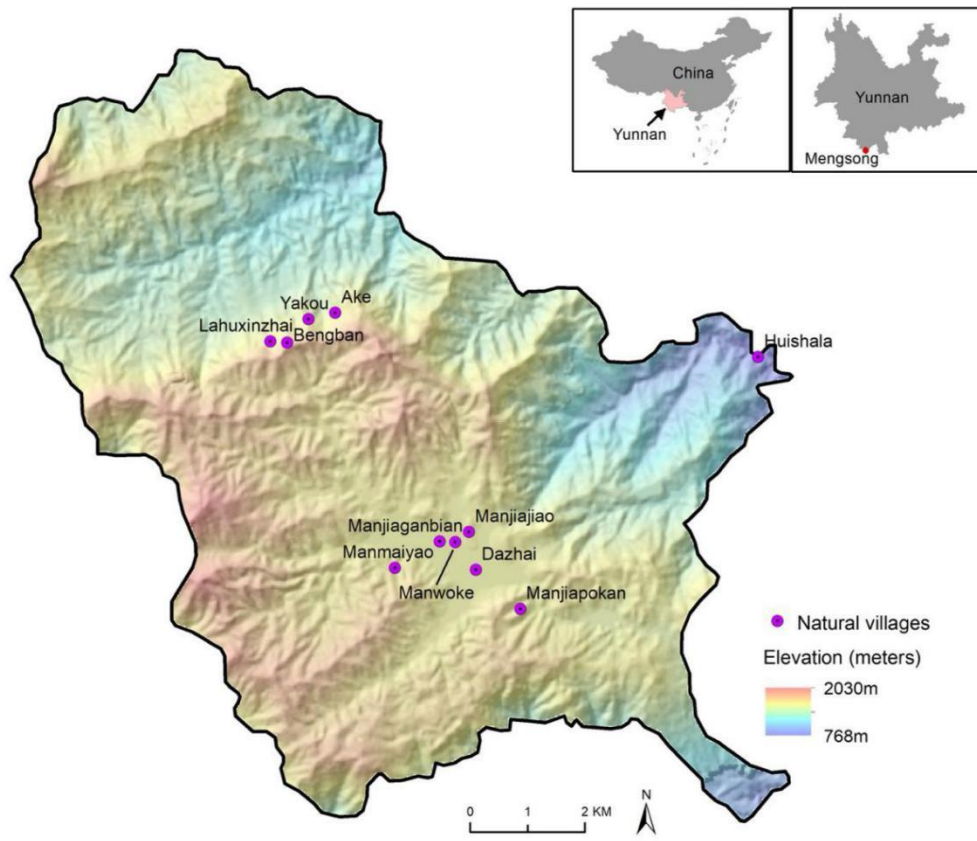
#### Location of the Study

The research was thoroughly conducted in Mengsong, which falls under the administration of Menglong Township, Jinghong Municipality, Xishuangbanna Prefecture, Yunnan Province, People's Republic of China (See Figure 5).

Yunnan Province is situated in Southwest China, with Kunming as its capital city. The province shares internal borders with China's Guangxi, Guizhou, Sichuan, and Tibet Autonomous Region provinces, as well as national borders with Vietnam, Laos, and Myanmar.

Xishuangbanna Dai Autonomous Prefecture is located in the southern region of Yunnan. The capital, Jinghong Municipality, governs one district and ten townships, encompassing a total area of 7,133 square kilometers with a population of approximately 520,000 individuals. Situated along the eastern and southern borders with Myanmar is Menglong Township, the largest township in the municipality, covering an area of 1,216 square kilometers and a population of 107,000 people. This constitutes approximately 17% of Jinghong's population (2018). Menglong Township oversees twenty administrative villages, including Mengsong.

Mengsong is situated 37 km from Menglong Town and 97 km from Jinghong City, in the southwestern extremity of Menglong Township. The area spans 100 square kilometers, with altitudes ranging from 800 to 2,000 meters above sea level. There are 2,883 residents across 623 households in 11 villages.



**Figure 6** Map of the Mengsong in Xishuangbanna, Yunnan Province, China

### Qualitative Methodology for the Study

While numerous quantitative studies on livelihood have been conducted in China, employing indicators to explore livelihood assets (LA) and their features among different farmers or to elucidate the general correlation between LA and livelihood strategies (LS), these studies often focus on the static aspects of households' livelihoods and fail to capture the dynamic process of local livelihood changes in response to external factors. In contrast, the present study employs a qualitative approach to examine the dynamic socio-economic context experienced by Hani households, their active engagement in livelihood changes, and the development or adaptation of local Hani institutions that coordinate such activities. Investigating these *“How”* questions illuminate the interactive processes among Hani households, community members, outsiders, and their broader contextual environment.

Shifting from a positivist perspective, which emphasizes objective universal realities that exist outside of specific contexts, to a phenomenalist view following Kuhn's paradigm shift (2012), this study adopts an inductive approach. This approach identifies relationships among external variables, community institutions, and household livelihood activities while emphasizing the importance of understanding the Hani's perspectives on livelihood change, observing their activities, and interpreting the social meanings inherent in their daily lives. While a conceptual framework was established prior to entering the community, it served primarily as a guideline for preparing questions or discussion topics. The framework and previously reviewed theories do not entirely dictate data collection as the researcher maintains an open-minded attitude during field visits, guided mainly by the core concepts in the livelihood framework.

### **Data Collection**

Various qualitative methods were utilized for data collection, including documentary analysis, participatory observation, in-depth interviews, and focus group discussions. A supplementary quantitative method, in the form of a semi-structured interview form for household surveys, was also employed to collect sample household data.

The field visit was initially planned as a 2-month stay in Mengsong, with a focus on the crucial spring tea harvest around April. This period is vital for tea farmers, as it involves labor recruitment for tea picking, processing, and selling in the market. Hence, the researcher planned this fieldwork during this optimal timeframe. In 2019, a 10-day pre-visit was conducted to design the outline for semi-structured interviews and establish topics for group discussions. However, due to COVID-19, the second field visit in 2020 was limited to a 2-week stay, and in 2021, permission for field visitation was not granted by the local administration. Fortunately, in 2022, the researcher managed to secure official permission and spent one month in Mengsong. Apart from these concentrated field periods, online interviews with key informants were also conducted during the data analysis period.

### Documentary

Documentary research focuses on data related to government policies, market trends, and historical Hani livelihood practices. For example, Table 3 below presents an overview of the policies affecting this area. Development policies, land, environmental policies, and border policies in recent years were all collected through documentary research. Published papers, government statistics on websites, and local project papers were also utilized as sources for this study.

**Table 2** The List of Government Policies

Year	Policy	Intention of the Policy
1950	Prohibition of opium cultivation	End opium cultivation
1958	Great leap forward	Expand mining for steel refining
1964	Grain self-sufficiency	Increase food security
1969	Grain request from uplands	Food is everything
1978	Exploitation of marginal lands	Increase grain protection
1978	Household responsibility system	End collective agriculture, increase grain production
1982	Forest land allocation	Sedentarize swidden
1990s	Poverty alleviation programs in Xishuangbanna	Sedentarize swidden
1998	Natural-forest protection program	Expand areas of terraced tea and rubber
1999	Sloping land conversion program	Conservation, grain for green
2006	Collective forest tenure reform	Strengthen tenure over forest land

Data resource: Xu Jianchu, et al., *ibid*



### **Participatory Observation**

During the field visit, the researcher resided in a guest room within a typical Hani household. By living with the Hani family, the researcher was able to observe Hani livelihood activities by participating in production, harvest, marketing, and more. Other social activities related to Hani livelihood—such as exchange labor, land rentals, and family gatherings—were also observed. Community activities encompassing cultural events, group activities, and public sharing provided essential insights into the diverse facets of local livelihood.

### **In-depth interview**

In-depth interviews are verbal conversations between individuals with the goal of collecting relevant data for research purposes. The researcher had already established a trustful rapport with community members prior to conducting interviews. Although the researcher was familiar with the older generation, it was crucial to build connections with the younger generation as well. Introductions from local elders facilitated the establishment of rapport with these younger individuals.

Various key informants were interviewed during the fieldwork, including:

- 2 current leaders of Mengsong administration
- 1 previous leader of Mengsong administration
- 12 current village leaders
- 3 previous village leaders
- 20 Hani households' heads (both husbandry and wife together)
- 3 cultural specialists of Mengsong
- 5 tea traders
- 4 tea agents
- 2 Menglong township officers
- 2 Jinghong government department officers

Interviews were conducted with open-ended questions relating to the conceptual framework. The emic perspectives of the interviewees were recorded to capture their personal understanding and interpretation of social facts. The concept of livelihood pathways, or trajectories, is a significant theme in the analysis of livelihood

transformations, as individual household strategic behaviors are embedded within historical repertoires (Haan & Zoomers, *ibid*; Scoones, 2009). In-depth interviews with Hani household head representatives focused on their current livelihood decisions and their narratives of livelihood change. From their responses, the researcher aimed to gain insight into their rationale, considerations, and life values.

#### **Focus-group discussion**

Two focus group discussions were conducted during the fieldwork.

The *1<sup>st</sup> focus group* consisted of 17 participants, including 12 village leaders from six Hani villages, two community leaders, and three Hani cultural specialists. The topics of discussion included:

- What policies were implemented in the Mengsong in last decades?
- What were the main impacts of these policies?
- What market trends happened in last decades?
- What were the main impacts of market trends?
- How Hani traditional culture had been changed by these policies and trends?
- What are the new formulated or adjusted community rules as adapting to those impacts?

The *2<sup>nd</sup> focus group* was organized at the end of the fieldwork and included 2 community leaders, 12 village leaders, and 12 household heads from 6 Hani villages. A total of 26 participants engaged in discussions on the following topics:

- Feedback the main findings from sample household survey data.
- What are the specific needed policies to support Hani household livelihood development in the future?

#### **Household survey**

Six Hani villages are located around the administrative center of Mengsong. This research targeted these 6 villages as representatives of the Mengsong Hani community. With a total of 488 Hani households in these 6 villages, the researcher randomly selected sample households for a household survey.

The sample size was calculated using Taro Yamane's formula (Yamane, 1967).

Total sample size:  $n = N / (1 + Ne^2) = 488 / (1 + 488(0.05)^2) = 219.8198$  (rounded to 220)

Sample size for each village:  $n = N \times 220 / 488$

The household survey was conducted village by village. In each village, village leaders informed all household heads to attend the village meeting room through a WeChat group announcement. The researcher waited in the meeting room and conducted face-to-face interviews using a semi-structured interview form when someone arrived. After surveying the required number of samples, the researcher thanked the remaining attendees and closed the session. The village leaders also invited 2-3 village cadres to sit beside the researcher to assist in cases where someone could not answer the question or when someone's answer was highly irregular and required confirmation. To account for data risks, the researcher collected a total of 235 samples, and ultimately, 222 were validated, with no empty questions remaining, as displayed in Table 3.

**Table 3** Sample Households in 6 Villages of Mengsong

Village Name	Village Total Household	Village Sample Household
Dazhai	146	64
Manjiapokan	70	32
Manmaiyaoyao	84	45
Manjiaganbian	66	30
Manwoke	46	20
Manjiyajiao	76	31
Total	488	222

A semi-structured interview form for the household survey was designed with respect to household livelihood assets (natural, physical, human, social, and financial), livelihood strategic activities (farming, non-farming, and non-farming), and livelihood outcomes (income, expense, and investment). The household livelihood survey primarily focused on household data for the year 2021, with additional questions investigating historical data to assess changes, such as land use and investment patterns. Prior to conducting the survey, the interview form was revised based on feedback from the researcher's advisor, three key local informants, and two Hani scholars from the Yunnan Academy of Social Sciences who possess expert knowledge of the Hani community in Mengsong. This revision process ensured that the form encompassed all aspects of livelihood assets, strategic activities, and outcomes related to Hani households in Mengsong.

### **Data Analysis**

Data analysis and data collection were generally processed interactively in this study. During field work, interviews and observations were analyzed immediately after completion to generate content relevant to the research conceptual framework. This content also provided direction for subsequent interviews or observations, such as identifying new areas requiring more data or areas that needed further clarification.

Content analysis was applied for qualitative data analysis, referencing the principles of Strauss and Corbin (2015). In their grounded theory, the coding method is used to extract the main ideas of the data. There are four stages in constant comparison when analyzing data by coding: comparison between events, concepts with more events, concept with concept, and theory with literature references. The comparison between events is used during open coding to find categories in the data. When a category emerges, it is compared with more events until reaching saturation. Comparing categories leads to the emergence of a higher-level abstract category (as a concept). When the core category achieves theoretical integration (as a theory), it can be compared with literature or other references. This constant comparison process was employed repeatedly in this study for qualitative data analysis.

Quantitative household survey data was analyzed using the SPSS program to generate descriptive statistics, such as frequency, percentage, average, etc., of Hani households.

### **Data Verification**

Data verification is a process in which various types of data are checked for accuracy and consistency after data collection has been completed. It helps determine whether data was accurately translated when transferred from one source to another. Validity and reliability considerations are essential for data verification. Typically, quantitative studies excel in reliability, while qualitative studies excel in validity (Babbie, 2005). The study's instrument was verified by content validity (as already explained on page 53).

The reliability of qualitative data was primarily checked through triangulation. Two types of triangulation were applied in the field work. The first was comparing qualitative data with quantitative data; interview informants' responses were cross-referenced with policy documents, household surveys, and government statistics. The second form of triangulation involved checking data among qualitative methods, such as comparing interview answers from different households' sources or comparing interview responses with on-site observation. If contradictions were found between two data sources, the researcher sought additional data sources for further confirmation.

## CHAPTER 4

### RESEARCH FINDINGS

In June 2019, upon visiting Mengsong, my old friends informed me that they now enjoy a significantly improved quality of life compared to the past. All of these changes can be attributed to tea cultivation. In this chapter, I will elaborate on the research findings in relation to the four research objectives of the study. A general historical background of Hani traditional livelihood will be presented as a reference for an updated comparison.

#### Hani Traditional Livelihood

The Hani minority originally hailed from the Red River region of central Yunnan and migrated to Xishuangbanna around the middle of the 18th century. Initially, the Hani people were familiar with paddy rice cultivation in their original location of Honghe. After moving to Xishuangbanna, they continued to cultivate paddy rice for some time. However, due to conflicts with the local Dai people, the Hani were forced to move to upland territories. In these upland territories, the Hani learned to practice swidden cultivation, a method acquired from other upland minorities in the vacant temperate upland and practiced it for over one hundred years (Xu Jianchu, et al., *ibid*).

Xu Jianchu et al. described the typical swidden cultivation of the Hani people in Mengsong as “Qaiya-aneya (Hani language name),” which translates to the upland rice-rattan, swidden-fallow. The landscape predominantly consisted of upland rice fields (known as “qaiya”), maize fields (referred to as “aduya”) as annual crops, and inter-cropped rattan (called “aneya”), bamboo (termed “apeya”), tree vegetable (called “wunueya”), and tea (referred to as “leboya”) as perennial crops for fallow fields. Hani households opened new swidden fields to plant upland rice, maize, or soybean as a food-crop stage in qaiya. This stage of crop growth would take 2-3 years. They would then plant rotations of rattan, bamboo, and fruit trees as the food crop

yields decreased. Approximately 7 years after planting, Hani could harvest rattan and bamboo.

Contrary to conventional understanding, which perceives swidden as deforestation caused by clearing and burning forests to open new swidden fields, studies have demonstrated a high level of biodiversity within swidden fallows. The Hani minority in Mengsong traditionally planted around 100 species in their swidden fields. Their farming practices also contributed to maintaining biodiversity in swidden fallows, with more than 120 species found in closed canopy (mature) forests and open-canopy or secondary forests (Xu, 1990).

Swidden cultivation was historically integral to people's livelihood, social system, and culture (Conklin, 1957). For the Hani people in Mengsong, swidden was also a cultural adaptation, which evolved through long-term interaction with their natural environment. In Mengsong communities, local elders told the researcher the world was divided into two parts: the people's world (inside) and the naef's (spirit) world (outside). The people's world is centered around the village, while the realm of naef is centered in forests, where naef has dominion over all animals and plants. Hani communities manage their natural resources through religious representations. Forest areas are categorized into different types, such as scenic forest, watershed forest, firewood forest, sacred forest, and forestland for swidden. Hani cultural specialists in Mengsong said they had numerous taboos under the spirit of naef designed to protect forests. For example, if a sacred forest were to be opened for swidden, the violating household would incur serious illness as punishment from the naef (Wang Jianhua, *ibid*).

Land that was not subject to such taboos was permitted for farming. These lands traditionally belonged to the village collectively rather than to individuals. The village claimed ownership of the land through its spiritual lords. Those wanting to utilize the land would first need to seek permission from the spirit. The Hani people would "sign a lease" with and symbolically pay "rent" by sacrificing animals to the spiritual lord whenever they needed to use a piece of land. Once the harvest was complete, a ceremony would be performed to return the land to the spirit. These lease and return ceremonies were typically performed annually if the land needed to

be used for more than one year. The animists and ancestor worship practices of the Hani people effectively protected forests, animals, and plants throughout the swidden farming process (Wang Jianhua, *ibid*).

Mengsong community's religion-oriented governance structure is led by an inherited village chief, known as "zoema". The chief's role encompasses conducting annual collective religious and agricultural rituals, maintaining a healthy relationship between the village and its natural environments, as well as fostering harmony among individuals, families, and lineages within the village. Other customary authorities, such as the headman ("palu"), clan heads ("pamou"), and shaman ("biemo"), perform traditional rituals to select swidden sites or address illnesses caused by disturbances to the spirit (Xu Jianchu, et al., *ibid*).

Swidden agriculture is the Hani's traditional livelihood. This practice not only provides upland rice, but also tea, bamboo, rattan, and fruit, as well as non-timber forest products such as mushrooms and vegetables. Hani subsistence can be entirely sustained by swidden farming. The recycling practice between farming and reforestation in the swidden system can effectively sustain local living needs with environmental renewal by following Hani tradition. However, Hani traditional livelihood has been significantly altered due to the impacts of external factors, as the next section will demonstrate.

## **The External Drivers of Hani Livelihood Change**

### **1. Modern Market Trend**

#### **1.1 General market history with Mengsong**

Markets have long been a part of Hani life, even though they are often described as a primary ethnic group who practiced swidden agriculture for subsistence economy. Markets have been closely embedded in Hani life for centuries. Apart from self-harvest and sharing within group members, goods exchanged in markets have been an essential supplement for the Hani. For those goods, such as salt, oil, and ironed tools, not produced locally, people needed to buy them from the market. The ancient horse path is a well-known case of a mobile market for long-distance tea trade carried



by horse caravan from Yunnan to Tibet. The trade linked the main Pu'er tea production of the Six-Tea-Mountain area, including Hani, Bulang, Jinuo, and other ethnic locations in Xishuangbanna, with tea customers in Tibet (Xiao Kunbing, 2018). During this period, upland Hani produced tea and sold it to lowland traders, who then transported the tea to distant markets. The Pu'er tea trade was highly prosperous, providing significant economic benefits for the Hani lifestyle.

The Hani community in Mengsong has been involved in the Pu'er tea market for hundreds of years. This can be evidenced by their abundant ancient tea gardens. A field investigation by an academic team in 2004 revealed that the total ancient tea garden area in Mengsong is approximately 5,170 mu, with an average age of over 200 years (Chen Hongwei, 2011). There are eight large ancient tea gardens near the original locations of Hani hamlets. Each tea garden can be recognized as clan heritage by the households in Mengsong.

Another example of Mengsong's deep involvement in the market is the selling of paddy fields for opium. Wang Jianhua (2009) compared the per capita paddy field occupation among households in Mengsong's six villages and found significant differences. The least per capital paddy field for its household is in Manjiajiao village, with only 0.9 mu. The largest is in Manwoke village, with 2.2 mu. During the Household Responsibility System (HRS) implementation in Mengsong in the 1980s, the paddy fields were distributed to households equally at the village level. Each household in a village had been distributed an equal paddy area per capital. Differences in per capital distribution among villages are solely due to the varying total paddy field holdings before the HRS. During the Pu'er tea boom, opium was introduced in Mengsong. Households in some villages (such as Manjiajiao) sold not only tea but also paddy fields to fuel their opium consumption, resulting in a loss of paddy fields.

Xishuangbanna had been involved in long-distance trade networks for centuries until the establishment of the communist regime in China (Strugen, 2010). Consequently, the period during which Mengsong was considered outside of the market system may have been during the communist era, specifically from the 1950s to the 1970s. During this period, the rural economy was controlled by the central government through the commune system. Households participated in production and

received their share of benefits through a system called Gongfen (labor calculation) arranged by the local commune. When I conversed with the grandparents in Mengsong, they recounted events where the commune organized laborers to cultivate paddy fields, clean canals, and construct long-shelters. They referred to this era as "Big Pot," symbolizing a collective lifestyle where all people ate together and worked together. The Hani people's livelihood was organized by the commune in accordance with government plans, and there was no market system in Mengsong during that time.

After the implementation of the Household Responsibility System (HRS) in Mengsong in 1984, the commune system was disbanded, and land was distributed among individual households. As a result, the local market re-emerged when the open-door policy was introduced. Sida, the former head of Manmai Yao village, informed me that almost all households in his village constructed new wooden houses during the 1980s and 1990s. When compared to the shared long-shelter of the commune period, these wooden houses provided almost double the living space and greater convenience. The Hani people flexibly engaged in the local market by selling additional products (e.g., livestock, vegetables, and fruits) and forest resources to accumulate surplus for their wooden house construction. Additionally, they excavated tin (from newly opened mines in their fields) for sale. The open market enabled them to lead a better life compared to the commune era.

When I first visited Mengsong in 2003, a farm market was present in the community center, where various vegetables, fruits, and wild species (such as bamboo shoots, rattan, and mushrooms) were available. There were also traders who purchased products from Mengsong and transported them to the Menglong downtown area for sale to lowland Dai customers. As Mengsong did not have a dominant product during that time, Hani households chose to offer different kinds of products in the market to earn some additional income.

In 2003, I worked as an NGO employee and was invited to implement a cash crop project in Mengsong. By that time, paddy rice production was sufficient for their yearly consumption, leading the Hani people to halt upland rice cultivation in their swidden fields. Households were seeking new cash crop opportunities for their swidden lands. Agefa, then the head of Manmai Yao village, led all households in the village to cultivate a public wasteland (about 2,000 mu) for cash crop production as their economic zone, an idea borrowed from television news. Each household in Manmai Yao received a plot of land within this zone for cash crop cultivation. The cash crop project introduced several market-oriented fruit varieties, including walnut, chestnut, bayberry, and tea, which eventually became their top priority.

### **1.2 Market trend 1: Pu'er tea booming**

Although there were more than 5,000 mu of ancient tea in Mengsong, households had not shown much interest in managing tea plantations during the early 1990s due to the low market price for tea. They only sent their elderly or young family members to harvest tea for personal consumption or small-scale sales at approximately RMB 10 per kilo of dried tea. To produce 1 kilo of dried tea, 4-4.5 kilos of fresh leaves were required for processing. Therefore, when calculated in terms of fresh tea, the outdoor price was RMB 2-2.5 per kilo at that time. Atu, a local primary schoolteacher, recalled that the price of tea in 1997 was RMB 2 per kilo. The school had established a tea processing plant that collected fresh tea leaves from villagers at that price. By 2003, the price of dried tea had risen to RMB 20 per kilo, and the interest of villagers in tea cultivation began to increase. They subsequently started planting tea in their swidden lands.

On a macroeconomic level, the dramatic economic growth experienced in China since the turn of the century has significantly improved living conditions for many citizens. With newfound affluence, an increasing number of Chinese people have started to prioritize their health. One example of this trend is the growing popularity of Pu'er tea, which has been proven to be beneficial for human health. Drinking Pu'er tea has become a fashionable lifestyle choice, particularly in eastern coastal provinces such as Guangdong, Fujian, and Zhejiang. The wealthy entering the market has driven

a surge in demand and caused prices to rise. In 2007, the price of old Pu'er tea, which is fully fermented and can be stored for a long time, reached its peak. Even becoming a financial product for investment. For instance, the price of ancient spring tea in Bulang mountain (one of the Six-Tea Mountain) rose to RMB 500 per kilo in that year (Zhang & Han, 2021).

Mengsong, although not part of the famous Six-Tea-Mountain area, experienced a less noticeable increase in tea prices before 2007. In 2006, their tea price was just RMB 50 per kilo, having increased by around RMB 10 annually since 2003 (Zhang, 2021). The price boom affected Mengsong in 2007 when its tea price rapidly climbed to RMB 300 per kilo. Due to a lack of knowledge regarding macroeconomic trends, Mengsong villagers attributed the significant jump in prices to the gold award they received in the Guangzhou Tea Expo in 2006. This award established Mengsong tea as a well-known brand and attracted the attention of outsiders. Today, Mengsong is synonymous with Pu'er tea enthusiasts as "Small Mengsong," while "Big Mengsong," a township in Menghai County, remains famous as a producer of Pu'er tea.

Initially, traders purchased Mengsong tea for blending purposes at the beginning of 2007. Banzhan tea, located in the core area of the Six-Tea-Mountains region, was renowned, and its price reached almost RMB 10,000 per kilo. Mengsong's proximity to Banzhan, as well as the similarities in taste, made it a suitable option for blending to meet market demands. Local Hani trader Ahong revealed that Mengsong tea has two distinct flavors: sweet and bitter. Initially, the bitter variety fetched a higher price as it was more useful for blending. As a result, households in Manjiapokan village became wealthier first, thanks to their abundance of bitter tea. In recent times, however, the sweeter flavor has become more popular and commands a better price. To further promote the market, Mengsong's administration has hosted tea competition events during the Gatangpa Festival (Hani New Year) for several years, attracting numerous visitors and boosting the reputation of Mengsong tea.

In 2018, China Tea Group arrived in Mengsong and collaborated with the local administration to establish an exhibition pilot and a high-standard factory. The group aims to strengthen its market chain by incorporating all of Mengsong's ancient tea as

its cooperative partners. Apart from China Tea Group, other significant Pu'er tea companies, such as Rainforest, Douji, and Chensheng, have entered Mengsong. These organizations have either set up tea collection spots or built processing plants with trader partners in Mengsong. The presence of these groups has helped stabilize Mengsong's tea prices.

Each year, private tea traders arrive early to purchase spring tea before large companies. These private traders typically own tea shops or tea chains catering to high-end customers. They come to Mengsong in early spring to acquire the most valuable spring tea at high prices. In contrast, larger companies targeting a broader customer base pay lower prices for later spring, summer, and autumn teas after private traders have made their purchases.

Today, there are two primary channels for selling Mengsong tea in the market. Every spring, tea traders visit the ancient tea gardens (or rely on trusted local agents) to purchase fresh tea leaves at a price between RMB 150 to 200 per kilo. The price difference depends on factors such as the age and size of the tea tree and its taste. This is referred to as the on-tree price. Tea traders, through several years of buying experience, have learned the location of high-quality tea trees in the gardens, allowing them to purchase their preferred tea. The remaining tea is then sold to company collection spots at a price of RMB 15-30 per kilo if fresh, or 60-120 if dry, a price referred to as the outdoor price.

If we examine the price changes of ancient spring dry tea in Mengsong, we can observe a general increasing trend from RMB 300 in 2007 to RMB 800 in 2019. Over the recent three years (2019, 2020, 2022), my visits in June each year have shown that tea prices have remained stable, even amid the COVID-19 pandemic. Informants shared their concerns about the reduced number of traders visiting Mengsong due to COVID-19 restrictions, leading them to explore online sales channels. The price for fresh tea purchased by companies has remained steady at RMB 15-30. The primary cost for tea farming is labor, with the labor input for fresh tea picking estimated to be approximately RMB 10-15 per kilo in 2022. Consequently, RMB 10-15 serves as the break-even point for tea production. If the market deteriorates and either fresh tea

prices fall below RMB 10-15 or labor costs exceed RMB 10-15, it could present significant challenges for the tea industry.

The current stable prices and sales channels incentivize Hani households to maintain their enthusiasm for tea production. When asked if there is any land in Mengsong not yet cultivated for tea, Atu responded humorously that any unused land must belong to someone who has been primarily focused on occupying collective land while postponing personal plantation development. This assumption is supported by the data collected from my sample household survey. There is 789 Mu of swidden land not utilized for tea production, of which 648 Mu have long been dedicated to rubber or pine tree plantations, prior to the tea boom. Only 241 Mu (belonging to 18 households) remain vacant. The total tea plantation area for all sampled households is 9,875 Mu, resulting in a tea land-use rate of 92.6%. Household income analysis for 2021 indicates that earnings from tea amount to RMB 110,992.7, accounting for 76.2% of total income, thereby demonstrating the transformation of Hani households' livelihoods towards tea production.

### **1.3 Market trend 2: rural commercialization**

In addition to the growth of the Pu'er tea market, rural commercialization has also emerged as a significant trend affecting households in Mengsong.

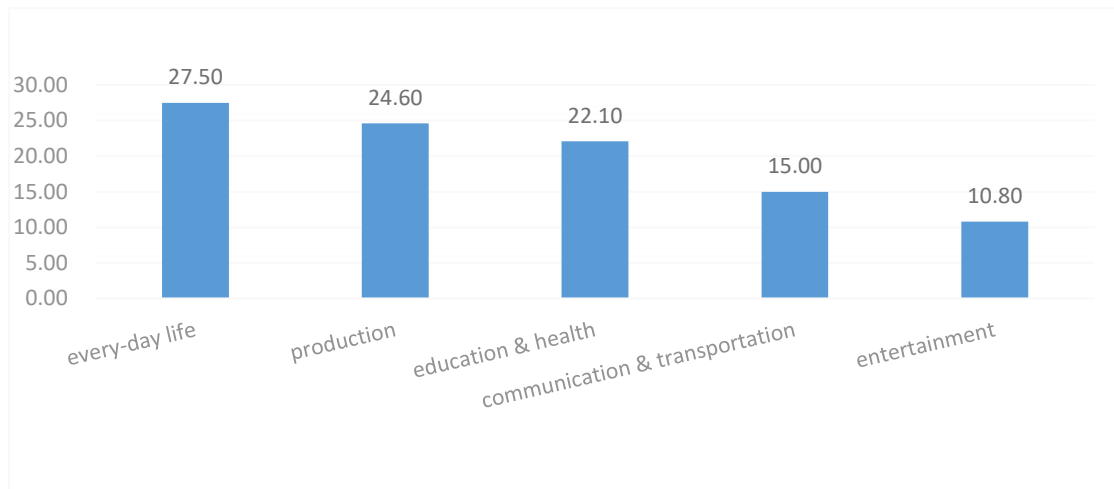
Health and education services constitute the core of rural commercialization. These valuable services were popularized by promoting policy among rural households. Both health and education are crucial public services that the Chinese government recognizes as integral to building a national civilized society. Rural households are engaged in these services and progressively contribute to improving their living conditions (Strugen, 2010). For many households, expenditures on health and education are challenging aspects that drive rural residents to seize any opportunity to earn additional income. Consequently, in 2015, health and education accounted for 42% of the main sources of rural poverty in China (China Poverty Alleviation Office Statistics, 2015). To alleviate poverty, the Chinese government has introduced policies to reduce household costs related to health and education services. These include compulsory and free education for grades 1-9 across the

country and enrolling rural households in the national health insurance system, which provides a reimbursement of 75-90% for qualifying residents.

Mengsong has achieved a 100% enrollment rate in schools, as required by local government policies. For instance, in 2018, all 163 children were enrolled in school, as recorded by the Mengsong administration. This record has been monitored year by year as a basic requirement by poverty alleviation policy. Although tuition is free for grade 1-9 students, they still need RMB 30-50 per week as pocket money for snacks and stationery. Some households enroll their children in extracurricular classes, such as art, sports, or English, costing around RMB 1500-2000 per semester. If the children pass the exams, households will send them to higher education institutions, including vocational schools, colleges, or universities, where they must afford living expenses and tuition fees of several thousand RMB per semester.

Health expenditure has grown rapidly in Mengsong in recent years. The total population is 2,883, with 164 individuals diagnosed with hypertension in 2021, as recorded by the local clinic. The primary cause, as identified by local doctors, is an increase in meat consumption. Although exact numbers are unavailable, numerous urarthritis cases were reported during face-to-face interviews with local residents. Alcohol consumption, particularly beer, is very popular in the community. The drug problem was a significant issue before 2016, prompting the government to perform monthly urinalysis tests on targeted demographics. The sample household data indicates 117 cases of hospitalizations in 2021, costing RMB 10,000-120,000. Unlike the past where local herbal medicines were used, modernized health issues have forced Hani households to seek treatment in hospitals, which incur higher costs.

In 2021, the sample households' education expenditure was RMB 8,248.2, and health expenditure was RMB 10,577; together comprising 22.1% of the total annual expenditure (RMB 85,150.3). Aside from health and education, Mengsong's primary expenditures include everyday living costs (27.5%), housing and transportation (15%), communication (12.9%), and social relations (3.4%), with miscellaneous expenses accounting for RMB 9,233.7 (see Figure 7).



**Figure 7** Mengsong Household Annual Expenditure Category and Its Percentage (%)

Everyday living costs represent the highest expenditure. In the past, Hani households did not spend much on food, clothing, water, and other basic needs, relying mostly on locally produced goods. Today, a significant portion of their income is used to purchase rice and meat, items that were once self-produced. According to Yang Jianrong, his household consumes 3 cups (900 milliliters each) of rice per day, amounting to an average daily consumption of 0.9 kg per household member. With the average rice price of RMB 3.0-3.5 per kg, a household of 4.77 members (sample average size) must allocate around RMB 5,000 per year for rice alone.

Meat expenditures amount to approximately RMB 7,000 per year for the sample households. In the past, Hani people raised pigs for their own consumption and supplemented their protein intake through hunting. Currently, only 27.0% of households raise pigs, as most now purchase meat from local markets or other community sources. Aside from food, other daily expenses include clothing (RMB 3,959.6), banquet gifts (RMB 2,723.4), sanitation materials (RMB 2,721.2), tap water, and electricity (RMB 1,351.0). All these costs have become necessary components of Hani households' modern lifestyles.



Additionally, spending on entertainment, such as tobacco and alcohol, group gatherings, lottery, and tourism, account for 10% of the total household expenditures. A local store owner informed the author that various cigarette options cater to different age groups, with adults typically choosing those costing RMB 12 and younger individuals opting for the RMB 25 or RMB 45 options, especially during social events. In addition, alcohol consumption (beer and white wine) is a common aspect of gatherings. Some young Hani residents spend hundreds on lottery tickets, while others participate in tourism costing thousands. These expenses represent new trends and fashionable commodities in the Hani community.

The sample household data indicates that 93.7% of households have purchased electric appliances in the last 10 years, such as TVs, refrigerators, and washing machines. Additionally, 87.4% of households acquired agricultural or tea processing machines, 68.0% rebuilt their homes using modern materials, exchanging wooden structures for cement-steel structures, and almost half (49.5%) purchased a car, which they never owned before. Today, electric appliances and tea machines are popular commodities in Hani households. New-style houses with fashionable decorations and cars have become symbols of a good life. More and more Hani households are planning to improve their lives by purchasing these commodities.

In conclusion, the rapid growth of Pu'er tea and commercialization are two main trends that have deeply driven the transformation of Hani livelihoods in recent years. Whether by earning money from tea sales or by improving their living standards through the acquisition of modern commodities, local Hani households are pursuing a better life by seeking increased cash flows in today's market.

## **2. Policy**

### **2.1 Development policy**

Development has been the primary target of Chinese government policy in recent decades. In the past, benefits from rural agriculture were extracted by the government to support national industrialization through price disparities between industrial and agricultural products under the central plan. After significant urbanization successes, the underdevelopment of rural areas, agriculture, and farmers (collectively

known as the Sannong problem) became a hot issue in China. Consequently, the Chinese government shifted its focus to reinvest in rural agriculture using industrial benefits. In 2006, the Chinese government eliminated its agricultural tax and initiated more development projects in rural areas. In 2012, the Chinese central government launched national strategies to combat poverty in its rural areas and achieved the goal of total poverty alleviation by 2020.

Two primary development policies have been implemented in Mengsong, which has led to significant improvements in community infrastructure. The earlier policy is “Prospering Border Region and Enriching People Living There” (XBFM: Xing Bian Fu Min). Proposed by the State Ethnic Affairs Commission, National Development and Reform Commission, and the Ministry of Finance in 1999, this policy aimed to improve living conditions by investing in infrastructure, public services, and rural industrialization in border communities. Starting from 2000, the Yunnan province piloted the XBFM program. Subsequently, it planned several 3-year program rounds in its border regions after 2005. Scholarly evaluations of the near 2 rounds of 3-year programs (2015-2017, 2018-2020) indicate that the per capital income of households in Yunnan border regions had increased from RMB 4,974 in 2014 to RMB 9,817 in 2019 (Zhang Lijun, Zhao Qian, and Gong Rongrong, 2020).

Today, as one of the border communities, all roads in Mengsong are cemented due to development policy support, including the main road that links Mengsong to the lowland Menglong township and all inner community roads between villages. The policy also built or rebuilt small paths within villages, changing them from muddy to cemented. Furthermore, tap water, solar lamps, sewage systems, public toilets, and garbage containers in all villages were built or upgraded to meet sanitation standards. Early in 2011, cable TV was introduced to Mengsong, and the project provided 68 sets of receivers for local demonstrations. The project also supported local education and health by constructing a school dormitory building in 2014 and expanding the community clinic in 2018.

Since Mengsong was recognized by the government as a provincial poor community in 2013, Poverty Alleviation has become the most critical development policy, leading to the implementation of numerous projects in the community. Local

infrastructure has been continually improved, with a budget of RMB 1.54 million allocated to widen the main road. Community administration and all villages have constructed functional buildings with sports courts. The central farm market and community street were enhanced by policy support. New dormitories, classrooms, teaching halls, sports stadiums, community nurseries, and community clinics were all constructed during this policy cycle. Meanwhile, the policy also devoted half of its total budget (RMB 5.21 million in 2018-2020) to repair and reinforce 239 households' houses.

To promote economic development, policies have invested significant resources in agricultural infrastructure. In 2010, the local reservoir was consolidated, and in 2012, the primary farmland was leveled, and the irrigation system was rebuilt. A project to strengthen local grain production incorporated more convenient farm tracks into a redesigned irrigation system and expanded the cultivatable area to include nearby wastelands. This led to a 13.1% increase in arable land ratio (Zhang Li, 2015).

However, households completely ceased paddy production following the project's implementation. According to Hani locals, the main reasons for this change were the inconvenient design of the new irrigation canal, which is situated at a lower elevation than the fields, and a shift in interest towards upland tea cultivation, which conflicts with the labor input required for paddy cultivation.

Public services have also been a primary focus of development policies, extending beyond basic infrastructure construction for roads, electricity, and tap water access to include the distribution of cable TV and internet services to all community households. As a result, remote border residents can now access new knowledge from external sources through television and internet connections. Policies continue to emphasize improvements in health and education services, including investments in the construction of facilities, teacher training, student grant support, and doctors' qualifications. In Mengsong, there exists a standard primary school and community clinic with a full complement of staff, attracting students from neighboring Myanmar.

The New Rural Cooperative Medical Insurance was fully implemented in rural areas after 2008, and in 2017, the rural medical insurance scheme was consolidated with the urban program, allowing all citizens, regardless of rural or urban location, to

participate in the same procedure for paying annual premiums and receiving reimbursements for a certain percentage of their treatment costs. Additionally, critical illness insurance, chronic disease insurance, and endowment insurance have been introduced in rural areas. In Mengsong, all 2883 villagers participate in these insurance systems.

Development policies have provided advanced infrastructure and improved social services to support Hani livelihoods, reducing the cost and risk associated with their way of life. Conversely, this support has also raised the standard for normal living conditions, encompassing a variety of annual fees, including those related to electricity, tap water, internet, mobile phones, tuition, insurance, and other expenses. Households have become increasingly intertwined with development policies in shaping their livelihood paths.

## **2.2 Land & environmental policy**

Land is the most critical resource for rural livelihoods. Since the 1980s, the Household Responsibility System (HRS) has been implemented in rural China. Starting then, rural households, as opposed to communes, obtained land rights for their private benefit. In 2014, a basic framework of land policy was established, consisting of three separate rights: ownership, contracting, and management. The community retains ownership rights to the land, while individual households receive contracting and management rights by signing a 30-year contract with the community administration. Although households cannot transfer their contracting rights during this period, management right can be transacted if the owner desires. Thus, the three-separation-rights framework ensures stability in land occupation while simultaneously encouraging the transaction of land right (management right).

The HRS arrived in Mengsong in 1984. Except public forest and wasteland which were defined as either national or community's, each household was firstly distributed pieces of forest (for their own wood consumption), tea garden, swidden land and paddy field under certain rate of per capital, as below table show.

**Table 4** Land Division of Mengsong in 1984 (Mu/capital)

Village	Forest	Tea garden	Paddy	Swidden
Dazhai	5	0.2	1.4	6
Manjiapokan	5	0.6	1.1	6
Manmai Yao	5	1.2	1.2	6
Manjiaganbian	5	1.1	1.6	6
Manwoke	5	1.6	2.2	3
Manjiajiao	5	0.8	0.9	9

Data resource: Wang Jianhua (2009)

Upon examining current household land occupation, it becomes apparent that the paddy field area is accurately measured, while other categories (forest, tea garden, and swidden land) lack precision. At the time of the Household Responsibility System (HRS) implementation, paddy fields were the most valuable asset in Mengsong for grain production. Consequently, distribution efforts prioritized these fields. The imprecision in other land categories is likely attributed to the challenges of measuring upland areas in a complex mountainous environment with limited technical methods.

In 1998, the second round of land distribution took place, continuing the first round of occupation with minor adjustments that accounted for changes in household membership. A decade later, in 2008, the third round of land distribution was executed in Mengsong, enabling households to receive their official land certificate. Both paddy fields and tea lands were registered with accurate measurements and a contracting period that extends until 2028. When renting land management right, households typically set the renting deadline for the same year.

In 2018, households were issued another land certificate that included a clear registration of swidden land areas and boundaries. The following image presents a household land certificate page with a visual representation of a household's swidden location and the plot scale parameter.

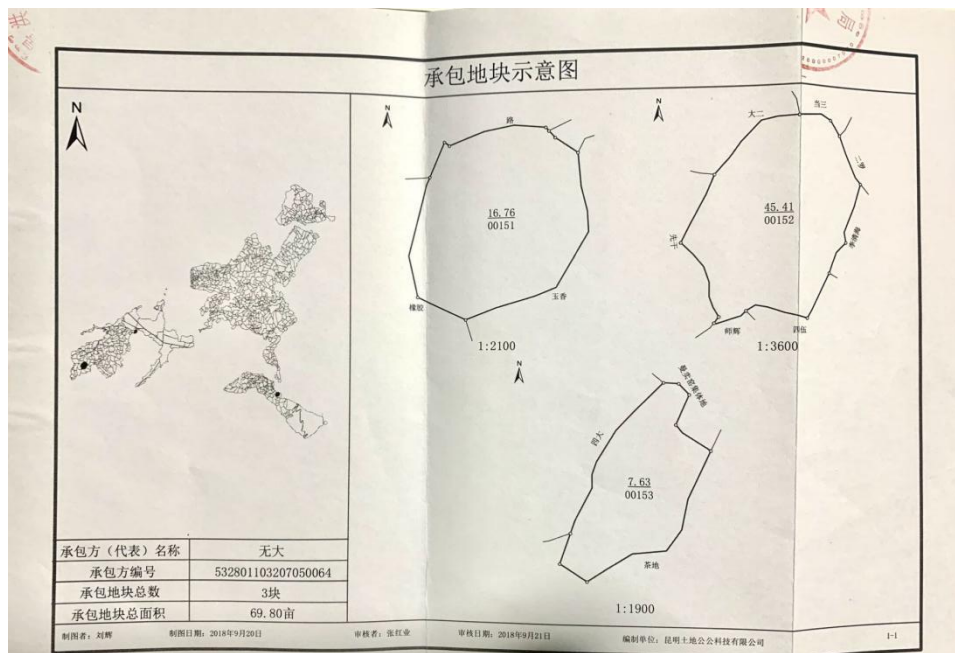


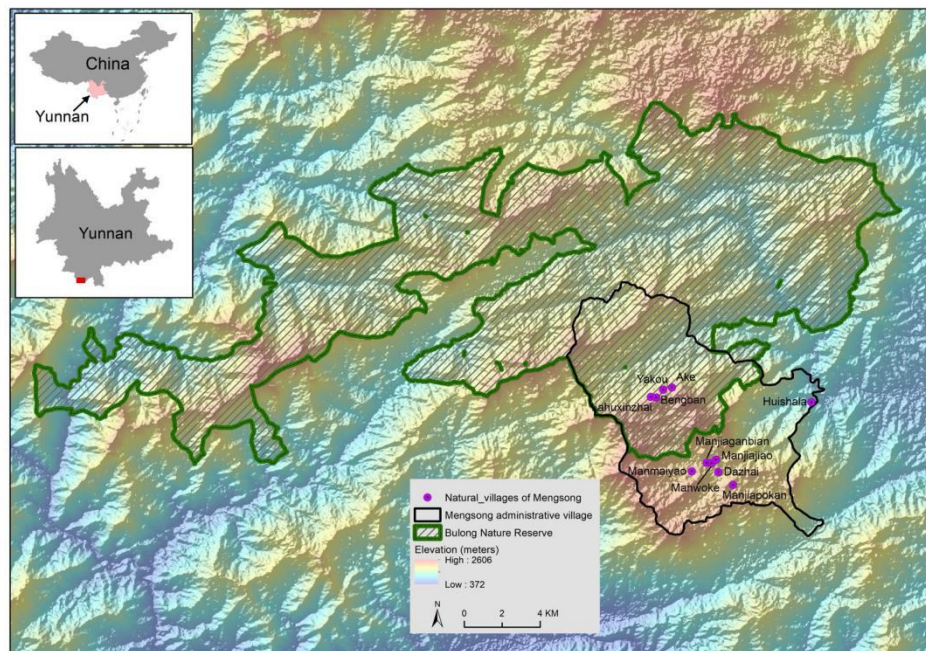
Figure 8 Map in Land Certification

Land policies in Mengsong have progressively delineated land boundaries, beginning with paddy fields, moving to tea lands, and most recently addressing swidden lands. This process has overlooked unofficial land occupations. During a dinner conversation with the former village accountant of Manmai Yao village, I was informed that land certificates only registered a portion of villagers' swidden land. In order to verify this claim, I interviewed several village households who corroborated his statement. For example, Sida has cultivated five pieces of land for many years, but these lands remain unregistered in his certificate. The absence of registration may result in future uncertainties if a landowner wishes to lease the unregistered land in the market.

In 2022, a new policy was implemented to register land for household homesteads. The land designated for house construction in villages was also subjected to the legitimizing procedure by the government to ensure the proper use of farmland for grain production. The government closely monitors land utilization through mapping, registering, and satellite surveillance. Households in Mengsong found to have excavated fishponds in their farmlands were ordered to revert the land back to farming or face penalties amounting to RMB60,000 per Mu if left unchanged.

Environmental policy runs parallel with land policy. As early as 1998, a Logging Ban policy was implemented in Xishuangbanna in response to the infamous Yangtze River flood. Natural forests, whether belonging to the nation or the Mengsong community, were granted strict protection. In 1999, the Land Conversion policy (commonly known as “Grain for Green”) was enforced in Xishuangbanna. This policy provided households with financial or grain compensation for reforesting farmland with a slope exceeding 25 degrees. In 2003, the successful implementation of the Household Responsibility System (HRS) in Mengsong led the Hani people to take a greater interest in rice cultivation and to largely abandon swidden farming. Consequently, they began planting large quantities of tea in their swidden lands, covering approximately 18,000 Mu. The government eventually granted compensation for only 4,940 Mu of the reforested land (Wang Jianhua, 2009).

In 2009, the Xishuangbanna government established the Bulong Natural Reserve within the two neighboring townships of Bulangshan and Menglong. The reserve was created in response to the discovery of rich tropical forest areas within these townships during the development of a biodiversity protection corridor project in the Greater Mekong Sub-region. The majority of the well-preserved forest areas within Menglong Township are located in Mengsong. As such, all natural forest areas in Mengsong were incorporated within the boundaries of the natural reserve, including swidden lands belonging to some households.



**Figure 9** The Map of Bulong Natural Reserve

The reserve established a station office in Mengsong, staffed by five contract employees and eight villager patrols. Today, all forests, whether originally situated on national, community, or private swidden lands, are safeguarded by these individuals. Forest monitoring is conducted through regular patrols across the reserve, as well as investigations of occasional reports by villagers.

Hani traditional tea gardens have always existed in symbiosis with forests as part of an ecological system. Although forests were classified as national or community property during land distribution, tea gardens within these forests remained under the ownership of individual households. Before the establishment of the reserve in 2009, households could remove a tree if it created excessive shade over tea plants. However, after 2009, tree cutting became prohibited as part of forest protection measures, leading some households to resort to illegal deforestation practices such as stripping the bark from the base of the tree so as to kill it without directly cutting it down. In response, the reserve initiated a crackdown on such practices from 2019 to 2020, resulting in some villagers receiving fines or suspended prison sentences. Some



villagers have argued that traditional tree management methods, which had been practiced for years, did not pose a serious threat to the overall integrity of the forest.

The year 2009 serves as a turning point for the validation of tea gardens within the natural reserve. Tea gardens established before this year were deemed legal, while those created after 2009 were considered illegal and required removal. In 2022, the government proposed a co-management fee for households that owned tea gardens within the natural reserve. The fee began with an initial proposal of RMB300 per Mu, later reduced to RMB100 per Mu during fieldwork in May 2022. However, the Mengsong villagers had not yet accepted this fee at the time of the researcher's departure.

Unlike today's government protection approaches, the Hani people traditionally protected forests by defining them as spiritual spaces. They believed that sacred forest areas were inhabited by Hani ancestors and gods. It was not permitted for people to enter these forest areas without the approval of the spirits. Every village in Mengsong had its own spiritual forest, all of which have been well-preserved until today. There is also another significant forest area called Sanpabawa, which was historically a rattan protection area belonging to the lowland lord of Dai. The Mengsong Hani were entrusted to protect this area for centuries. With the introduction of new policies, these forest protections have been handed over to Natural Reserves. Natural Reserves have forbidden most local logging practices with the exception of one tradition, coffin making. When a Hani elder passes away, villagers cut down a large tree to make a wooden coffin for them. This tradition has been preserved by the reserve patrols turning a blind eye.

To provide a general conclusion, land policies have progressively mapped out land boundaries in Mengsong. This mapping process has resulted in total land control by the government. In 2003, the encouragement of tea plantation adoption on swidden land was implemented through conversion compensations for households. Subsequently, in 2009, forest protection policies prevented further tea expansion into the reserve. The natural reserve halted the traditional practice of shadow tree cutting, which led to a conflict between local livelihood development and environmental protection.

### **2.3 Border policy**

In contrast to other inner rural communities, Mengsong is situated along the border between China and Myanmar, positioning it as a border community. Several specific border policies are applicable to Mengsong. The XBFM policy, previously mentioned, could also be considered a border policy since its main idea aligns with the ideology of community development. This section discusses specific border policies exclusive to border communities.

One such policy is the payment of subsidies for border citizens. Since 2017, the Chinese government initiated a policy to provide subsidies to citizens living close to the border. Subsidy standards were established based on the distance between the village site and the border line. Mengsong falls under the highest standard, which pertains to a 0-3-kilometer distance from the border. In 2017, the subsidy for Mengsong was RMB1000 per capital, increasing to RMB2500 in 2021. Household survey data indicates that, together with tea income, border subsidies constitute an essential and stable source of income for households in Mengsong.

These subsidies are a form of reward for border villagers assuming responsibilities related to border protection. Historically, these responsibilities included safeguarding, smuggling prevention, and particularly drug smuggling. During the COVID-19 pandemic, the Chinese government implemented the dynamic zeroing policy to prevent the importation of new COVID-19 cases from abroad, resulting in strict border controls. Border citizens were mobilized to participate in COVID-19 prevention measures along the border line. In 2020, Mengsong villagers were organized to contribute labor towards the construction of a 38.6 km long border fence. Along this fence, 11 checkpoints were established, with households assigned to guard these points both day and night. To secure these crucial subsidies, villagers must adhere to government requirements and pass the annual qualification review conducted by local administration. This ensures that villagers are more compliant in following administrative rules.

The construction of the border fence has entirely restricted border crossing mobility. In the past, Manmai Yao villagers maintained a co-managed pasture in the upland area of their Myanmar neighbors, where they grazed hundreds of cattle. After the construction of the fence, they had to relocate their cattle to the Chinese side. As

all lands in China have been allocated to individual owners, there is no vacant land available for free grazing. Consequently, cattle husbandry had to be abandoned in recent years. Xiangsan, a Manmai Yao villager, shared that he had previously worked in Myanmar as a craftsman for three months, which was his most significant source of income. Following border control measures, he had to seek alternative employment within China.

In the past, there was a significant amount of exchange between the two sides of the border. Villagers on both sides had relatives, friends, and family members living across the border. The border was perceived as more symbolic than physical by locals, allowing people to cross it easily to attend events if invited. Over the last decade, a boom in tea production has facilitated the mobilization of labor across the border. Before 2019, all laborers hired for tea harvesting in Mengsong were from Myanmar. Consequently, a Burmese labor market emerged in Mengsong, with each household employing Burmese workers during the two-month-long spring tea harvest. However, after the implementation of border control measures in 2020, Burmese laborers were prohibited from entering China. This prompted Mengsong villagers to hire lowland laborers from the Chinese side, resulting in a significant increase in labor costs. For example, while Burmese laborer cost RMB60-70 per day, Chinese laborers cost RMB120 per day, almost twice the amount.

The influx of Burmese labor, particularly women who stayed for extended periods, provided opportunities for unmarried, older men in Mengsong to find companionship. Owing to the relatively higher standard of living in China, some Burmese women chose to marry and remain in China. According to incomplete statistics, there are 12 Burmese wives in Manmai Yao village. The village of Manjiapokan has an even higher number of Burmese wives due to its proximity to the Myanmar border; however, the exact number is unknown. The halt of cross-border marriages and travel restrictions have prevented these Burmese wives from visiting their families in Myanmar for more than two years. Additionally, approximately 50 school children from Myanmar attending Mengsong Primary School were sent back.

Apart from border control, social regulations in border communities have been reinforced. In 2018, to deter theft, drug abuse, and tea fraud that accompanied the

economic boom, a security team consisting of 28 young villagers was established. Each community member was required to contribute RMB150 annually for team expenses, with the funds being collected directly from subsidies by community administration. In 2020, a grid management system was implemented in Mingsong, organizing households into grids under the village structure. For example, 86 households in Manmai Yao village were organized into eight grids, each with a grid head responsible for conveying policy requirements and ensuring compliance. Today, these grids handle various tasks, including weekly public area cleaning, monthly household sanitation checks, border fence guarding, project labor input, monitoring, and reporting on villagers' illegal activities.

#### **2.4 Government re-entry in rural community**

Following the implementation of open-door policies in the 1980s, the Chinese government endeavored to invigorate the market economy and position it as the primary mechanism for resource allocation. The establishment of the HRS signaled the beginning of a privatization era in rural market development. Contrasting with the commune period, which was characterized by complete government involvement in rural society, the HRS facilitated the government's withdrawal from rural areas, allowing space for market growth. Rather than central planning, the market-driven approach stimulated productivity among households, resulting in rapid economic growth in rural China.

However, rural community as collective entity had been weakened in public affairs after HRS. Moreover, the implementation of family planning and agriculture tax levying sharpened the contradiction between community cadre and community resident. All of these make the Chinese government gradually lost the confidence in its rural and caused the powerless problem in rural development. To smooth the gap of in-equal development between urban and rural, government canceled agricultural tax in 2006 and inputted significant policy projections in rural. Chinese government delivered the policy requirement layer by layer to its bureaucratic end, and re-entry rural community by the projects. The national wide anti-poverty policy empowered the government by fully touching every poor household in the remote areas recently.

All policies improved infrastructure in all aspects and bring welcome public service (education, health, insurance, etc.) in rural to support local livelihood development. That also strengthened the authority of government in rural community.

In today's Mengsong, the Hani people's livelihood has become intrinsically linked to a policy-enabled environment. Their most crucial livelihood asset, the tea garden, was distributed through land policies. These policies also support tea plantation development, technical training, equipment procurement, road and internet infrastructure, and other essential aspects. On the household consumption side, policies facilitate beneficial social services in education, health, and insurance, cultivating further needs for household expenditure.

### **Local Institutional Change by External Impacts**

The influence of policy and market conditions has caused Hani households to embed deeply within the market economy. Consequently, the market has evolved into the fundamental institution for Hani livelihood. In this section, I will outline the transformation process of local institutions under the impacts of market forces and policies.

#### **1. The Dismiss of Traditional Institution**

Wang Jianhua (2000) discovered that the Hani people in Mengsong traditionally divided their regions into five categories: hamlet, forest, swidden, paddy, and water (marsh) areas. The Hani reserved spiritual significance for essential forests, such as water-source, cemetery, and sacred areas, believing that these forests were the dwelling places of gods. Strict prohibitions against deforestation were enforced in these regions. Additionally, the Hani implemented a co-management system in other areas led by their traditional leaders at various scales: "palu" (community leader), "zoema" (village leader), and "pamou" (clan leader). These leaders served as authorities representing the entire Hani community in Mengsong and were responsible for establishing common rules and managing land-use distribution among members. Violators of these rules faced punishment by the authorities.

Spiritually rooted value systems were reinforced through ritual worship of deities, such as the land mother. Hani communities would select a large tree within a natural forest to represent the tree god and construct an altar nearby. A small wooden house on the altar would accommodate the land mother. Each year, they would choose a lucky day in June after the farming season for worship. One adult male from each household would attend, offering a pig's head to the land mother and sharing the cooked meat among participants. Any remaining meat would be scattered at the tree's base. During the worship day, other family members remained at home, refraining from working or leaving. The entire Mengsong community would worship together initially, followed by individual villages worshipping with their members.

To preserve the forest for future generations, Hani households adhered to clear instructions from the village head when establishing new swidden lands, ensuring proper rotation after plantation. They also protected specific tree species within their swidden land during planting. These key trees formed the core structure for subsequent reforestation. For example, Xu Zaifu (Wang Jianhua, 2000) noted that key species of tropical rainforest ecosystems, such as banyan and ficus altissima, were well-preserved by the Hani within their swidden lands. Moreover, to avoid over-exploitation of the forest, local authorities only permitted tree-cutting for subsistence grain; commercial purposes like selling timber to outsiders were strictly prohibited. As a result, the Hani maintained a vast area of natural forest in Mengsong even after centuries of swidden farming (Xu Jianchu, *ibid*).

By adhering to traditional practices, the Hani achieved equilibrium between subsistence livelihoods and natural resources. This tradition combined Hani social values, spiritual beliefs, and rules enforced by village authorities. Access to natural resources was managed and legitimized through this systematic tradition, which was shared by all community members as a collective responsibility.

Not only in natural resources but also in labor (as a human asset), Hani's tradition functioned effectively in providing mutual support based on common morals. Many people recall the exchange of labor during the upland rice farming season as a fond memory. Meilan, for example, described how as a host, he usually prepared a chicken and rice meal for the working day. All friends would work and eat together,

completing each other's farming tasks one by one. They would also sing songs as they labored in groups, and the chicken with rice became the most delicious food for a Hani household to offer their guests, even to this day.

This tradition has diminished significantly in recent years. Firstly, ritual worship was entirely halted since it was deemed superstitious during the Cultural Revolution period in China. Traditional leadership was also replaced by new leaders, who were party members with a good educational background and were required to follow instructions from higher authorities. Community rules regarding natural forest protection were adapted by the community committee to emphasize a broader concept of environmental well-being for the whole country, rather than adhering strictly to spiritual beliefs.

While tangible traditions can be easily altered, intangible ones may not. One night, during a discussion about a new building that had been constructed by a Shanghai lawyer as a vacation home, I admired its fashionable design, but Sida disapproved, as its location was downstream of the cemetery forest. *"Too close to the ghosts,"* he said.

To some extent, the Hani people still retain their spiritual beliefs. They believe in natural spirits in their sacred forests and other ghosts in areas outside of the hamlet area. The practice of "calling back the soul" is employed when a child is frightened; their soul must be called back from outside by crossing the village gate. A serious sickness is often considered an offense to a ghost, which requires praying for forgiveness. Their social network remains strong through community festivals, group activities, and family banquets. Maintaining good social relations remains a priority during market dealings with other community members; however, at present, all these traditions have become somewhat faded.



**Figure 10** Village Gate

## **2. The Emerging of Market Institution**

Markets were not a new phenomenon in Mengsong, as previously mentioned. Historically, the Hani people participated in markets by selling tea for supplementary income. This occurred during the Ancient Horse Path period. At that time, the tea market was not crucial for the Hani people, as their livelihoods did not heavily rely on it. However, today, the market has become essential for the Hani people. The majority of their income is derived from the market, and their living materials are also obtained from it. Furthermore, the market determines how Hani household access and utilize their productive assets. For instance, households purchase all new tea equipment from the market. The labor and land, which were originally endowments of a household, are now accessed through the emerging market in Mengsong.

### **2.1 Labor market**

Comparing the Hani labor input across all farming activities, it is evident that Hani households only hire labor for tea and not for other crops. This practice of hiring tea laborers started after the tea prices experienced a significant increase in 2007. Prior to that, Hani labor access mainly came from household self-supply and sharing labor with other community members. The tea market re-emerged in Mengsong in the early



1990s. At that time, there was a tea station to collect tea belonging to a tea company under the jurisdiction of the Jinghong municipal government. Households did not invest much labor into tea harvesting, as the prices were low during that period.

The surge in tea prices prompted the Hani people to expand tea plantations, leading to labor constraints. Initially, the Hani people redirected their labor from rice to tea production, completely abandoning rice farming after 2011. They also increased labor input during the tea season by working from dawn until late at night to keep up with tea germination. Moreover, they sought help from friends and relatives who did not depend on tea for their livelihood.

As labor requirements continued to increase, a paid-labor market emerged. A labor market formed on the streets of Mengsong, attracting many Myanmar workers from nearby hamlets to seek employment opportunities before 2020. The labor market typically operated between 17:30 and 20:00 in the evening, after a day's work. Both renters and workers gathered at the labor market to arrange the following day's employment. Agreements made, workers would then accompany the renters to their households, where they would reside for the duration of their negotiated work schedule, sharing meals and engaging in labor with members of the renter's household.

After 2020, the labor market underwent changes due to the COVID-19 control policy, preventing Myanmar workers from crossing the border to Mengsong. Consequently, labor supply shifted to nearby villagers, predominantly Dai people from downtown Menglong. The Dai laborers would travel to Mengsong daily via minibus, bringing their own food. Since they did not reside at Mengsong, hiring practices migrated online. Contractors, often minibus drivers, from the Dai labor supply facilitated connections between Mengsong Hani households seeking workers and available laborers. They provided their phone or WeChat details and coordinated laborers' daily transport to and from Mengsong.

Myanmar labor was cheaper, at RMB60 per day in 2019, compared to the Dai labor costing RMB100 per day in 2020, which later rose to RMB130-150 in 2022. The lower price for Myanmar labor is attributed to limited job opportunities in their homeland. Compared to RMB20-30 per day in Myanmar labor markets, working in

Mengsong for twice the pay was more appealing. Dai laborers, however, had more job options, either in downtown farms or Mengsong, making RMB100 per day in 2020 a standard rate for them. Rapidly increasing labor prices post-2020 resulted from a significant labor shortage during the tea season. This labor shortage developed into a crisis in Mengsong. The high labor costs caused the Hani people to feel a sense of loss. Some individuals remarked, “*our tea benefits are all taken by Dai labor.*” To address the labor shortage, Hani laborers also entered the market using their flexible work schedule.

## 2.2 Land market

In Mengsong, land usage reached full capacity. All accessible swidden lands were extensively cultivated with tea (and partially rubber and fir) by all households. After establishing the Bulong natural reserve, the government delineated a vast forest area protected by local reserve stations, ensuring that no new lands would be available for tea plantation. Quantitative data from sample households and confirmation from the community director supported this.

Land certification has been in place in Mengsong for a long time, aiming to establish a three-rights framework (ownership, contracting right, and management right) for all lands. Land ownership always belongs to the community. A household with land possesses the contracting and management rights. Should a household decide to rent land, it can rent out the management right but not the contracting right. The contracting right belongs to the original household even after renting out the land. This three-rights division allows for flexibility in management right renting while ensuring the continuation of other rights, preventing landlessness as a result of land renting in rural China.

In Mengsong, paddy lands were initially divided during the 1<sup>st</sup> round of the HRS in 1984 and were later contracted to every household through certification in the 2<sup>nd</sup> round in 1998. The certification of swidden lands began in 2018 but has yet to be completed as of today. Local authorities attribute this delay to the lack of agreement reached by all households regarding the land mapping of some villages. Additionally,

there are cases such as in Manmai Yao village, where certain lands remain uncertified despite the completion of the swidden land certification process.

Land renting has become a popular practice in Mengsong due to the higher profits obtained from tea production, which has shifted Hani households' interests from paddy rice to tea cultivation. Consequently, Hani households are ceasing paddy rice plantation and renting out their paddy lands. Tea lands have also entered the renting market, with 39 out of 222 sampled households (17.6%) engaging in land renting. Land renting exists not only between private households but also between village collectives and private households, as observed in Manmai Yao village. The village public is involved in renting out waste land to a Shanghai lawyer for constructing a vacation home, and renting 10 Mu of tea land to a local household. All renting incomes are recorded in the village account book.

Initially, tea land renting between households within a village was informal, as parties typically knew each other well and made oral agreements witnessed by mutual acquaintances. However, as more disputes arose in this informal renting system, the practice transitioned towards formal land renting. This new procedure involves a written contract signed by both parties and witnessed by the village leader as a third party. The adoption of a formal land renting contract suggests the expansion of the tea land renting market to include less familiar parties, such as other villagers or outsiders.

### **2.3 Livelihood fully embedded in market**

Hani households of Mengsong rely heavily on market systems for their diverse commodity consumption. Various market levels, from convenience stores or mini markets within villages to farm markets, supermarkets, and specialty markets in community centers, provide a wide range of daily goods and services. Furthermore, markets in larger locations (such as Menglong Township and Jinghong City) offer an even broader variety of products, including mobile phones, vehicles, and electronic appliances, among others.

In addition to physical marketplaces, online shopping has become an increasingly popular option for Hani consumers. Most villagers purchase clothing, tea machines, cosmetics, and fishing equipment online. The commercialization of Hani life is visible in nearly all aspects: the consumption goods they purchase come from the market, and their primary product, tea, is sold there as well. The profitability of the tea market encourages Hani farmers to expand tea production by acquiring all necessary productive assets through market transactions. Consequently, market institutions have become fundamental to Hani life. Zhang (2021) conducted a similar study in Xi community of Qinghai province, where villagers' livelihoods are also entirely embedded in the market.

To supplement their income and diversify their livelihood opportunities, Hani in Mengsong engage in various additional activities such as beekeeping and chicken farming within their tea gardens, fishpond construction in paddy fields, seasonal labor provision, land renting, and tea agent businesses. While some of these ventures have seen success, others are still in their early stages. The influx of customers to Mengsong, driven by the tea market, has broadened the villagers' perspectives on livelihood diversification and encouraged them to explore new options. The decision to adopt these new livelihood alternatives is primarily based on market potential, further illustrating the Hani community's strong dependence on the market.

In the interview conducted with informants, they defined the poor of the Hani ethnic group as those who *"everyday just get the enough for eat."* Being a community with abundant natural resources, Hani people were used to live off the wealth of their environment. *"They eat all by what they harvest from nature"*, according to the manager of China Tea Group. It was only after their deep involvement in the market economy that the rationale of the market gradually became part of their mentality.

### **3. Local administration supporting in market cultivation**

The introduction of multiple policies in Mengsong community led to the establishment of strong policy institutions. Mengsong has a local Communist Party committee, with the party secretary also serving as the director of administration. The community administration carries out various projects through office staff in

collaboration with all villages. In each village, there is a village head, who is necessarily a party member, leading a subcommittee. The village head can mobilize all villagers through a network connected with the community. The community also features a primary school, a health station, a reserve station, and several community cooperatives, all of which provide services under the requirements of local policies.

The primary focus of the community administration lies in local economic development, paying utmost attention to the vitality of the local market. During the tea boom in Mengsong, the administration embarked on numerous projects to cultivate the market, which proved essential for the development of the Hani people's livelihood.

**1) build market infrastructure and capacity.** The community administration executed anti-poverty and XBFM projects, significantly improving road conditions and online networking in Mengsong. This infrastructure proved crucial for market operations in product transportation, information exchange, and people's mobilization. Furthermore, the administration supported the training of farmers in tea garden management, tea processing, and tea marketing. Annual competitions in tea processing were organized to encourage advancements in local technologies. The administration also assisted local tea agents in obtaining licenses for their qualifications, with more than 160 successful applications by the end of 2022. Support was provided for local cooperatives to establish greenhouses and implement other advanced farming techniques, building the capacity of market actors such as villagers, tea agents, and local cooperatives.



**Figure 11** The Training Certificate Photo of Villager

**2) make market regulation.** The administration formed a security team in 2018 to avoid internal vicious competition within the community. This team, funded by a budget collected from all villagers at RMB150 per capital, set up monitoring guards at community gates to prevent tea fraud during the tea season. They also reported individuals that did not adhere to the price references set by the local administration for tea and labor sales. In addition, a community regulation was established in 2018 to protect ancient tea, requiring all community members to refrain from using chemical fertilizers and pesticides in their gardens. The security team conducted public surveillance day and night to maintain order and address theft, fighting, and drug abuse. These initiatives were highly commended by the villagers, as expressed during the interviews.

**3) bring in market entity.** In 2018, the administration director met with China Tea Group (CTP) during a tea expo and subsequently invited CTP to establish an exhibition center and a high-standard factory in Mengsong. Other prominent tea companies, such as Douji, Chensheng, Rainforest, and Dayi, were encouraged to set up processing facilities or collection stations in Mengsong. The arrival of these tea traders provided villagers with increased options for selling their tea products. Furthermore,

the administration invited companies from sectors such as vegetable, orchid, herb medicine, and konjac to rent paddy lands in Mengsong for establishing production bases. These companies paid RMB500 per Mu for land rental and RMB130 for labor throughout the year, engaging local villagers during off-tea seasons.



**Figure 12** Herbal Medicine Plantation in Mengsong Managed by a Company

The Hani community has experienced a significant transition from a subsistence livelihood to a market-oriented livelihood. This alteration has led to the traditional social institution being substantially transformed into a market institution. This change received strong support from the local administration. In pursuit of establishing a socialist market economy, the Chinese government retooled its administrative function to cultivate the market. The government set Key Performance Indicators (KPIs) and implemented projects accordingly. In Mengsong, the administration successfully led the tea market under the guidance of the community committee. Consequently, the administration director received the “China Outstanding” award in 2020 (<https://www.Xishuangbanna.gov.cn/news>).

## Hani Households Developed New Livelihood Strategies

In response to the market and policy changes, the local community embraced the market as the primary institution. As the fundamental unit of livelihood, households are tasked with making decisions regarding asset allocation and sharing the benefits among members. The following sections will explain how Hani households leverage their livelihood assets and assemble them to devise new livelihood strategies.

### 1. Hani Household

The survey conducted on 222 sample households revealed that, on average, a Hani household consists of 4.77 members. The typical family structure includes one adult couple accompanied by 1-2 children and 1-2 elders (father or mother). Approximately 22.6% of Hani households are small-sized, consisting of only 1-3 members, such as a parent residing with their unmarried son or daughter. Large households (more than 6 members) are relatively rare, accounting for a mere 11.4% (see Table 5). The limited household size is partly attributable to family planning policies and partly to the low marriage rates, which stem from the historical poverty of Hani households.

**Table 5** Hani Household Size in Mengsong

	No. of household member	Frequency	Percentage
	1-3	50	22.60
	4-6	147	66.20
	7-9	24	10.90
	10-	1	0.50
<b>Total</b>		<b>222</b>	<b>100</b>
Min	1		
Max	10		
Ave.	4.77		
Standard Deviation	2.549		



Typically, a Hani household has 2.98 laborers, and the educational level of most household heads is around primary and junior school (refer to Tables 6 and 7). Given the relatively low number and educational level, Hani laborers were primarily employed in local farming in the past. Migration to cities was not a common practice among them. Records from the Mensong community administration reveal that, in 2008, before the tea boom, only 22 of the 1622 total laborers were migrants.

**Table 6** Number of labor of Hani Household

	Labor number	Frequency	Percentage
	0	2	0.90
	1-2	70	31.53
	3-4	133	59.91
	5-	17	7.66
<b>Total</b>		<b>222</b>	<b>100</b>
Min	0		
Max	7		
Ave.	2.98		
Standard Deviation	1.212		

**Table 7** The Educational Level of Hani Household Head

Educational level	Frequency	Percentage
Illiteracy	40	18.02
Primary school	77	34.68
Junior school	79	35.59
High school and higher	26	11.71
<b>Total</b>	<b>222</b>	<b>100</b>

Scoones (1998) identified four livelihood strategies in his original framework: agricultural intensification, extensification, diversification, and migration. In China, many rural households have chosen to migrate to cities with their young adults, leaving the elderly and children in rural communities as part of a “half migrant half farm” strategy.

This choice has supported China's urbanization process, which reached an urbanization rate of up to 65.22% (National Bureau of Statistics, 2023).

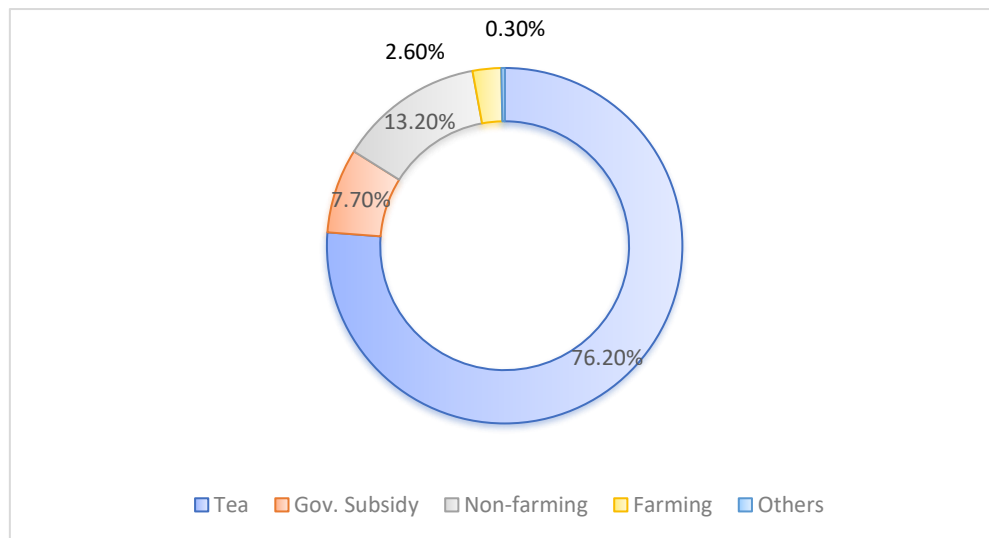
However, for most minority groups, joining the urbanization process has been challenging due to their low educational background, language differences (in comparison to Mandarin), and cultural barriers in adapting to factory discipline. They often remain in their villages, with their livelihoods still dependent on natural resources. As the household survey data indicates, Hani households share similarities with other minorities, as their livelihoods are still largely reliant on natural resources.

## 2. Livelihood Profile by Income

Income source is a critical indicator for determining a household's livelihood strategy (Ellis, 1998). If a household's income source is exclusively from farming or non-farming, their livelihood can be characterized as such. If a household's income sources come from both farming and non-farming, their livelihood strategy could be identified as diversification. Based on income sources, scholars have recognized different livelihood strategies in rural China, including pure farming, mainly farming, partly farming, and non-farming (Chen Fang, Yang Jianzhong, & Li Huilian, 2017).

During my previous visit to Mengsong in 2019, I conducted interviews with the households to gain a comprehensive understanding of their main income sources. Consequently, a semi-structured interview form was designed based on their income sources, and sample households' income data for the year 2021 was collected during my visit in May 2022.

The sample household survey indicates that the primary income source for Hani households is tea, accounting for 76.2% of their total earnings. Government subsidies through border policies account for 7.7% of their income. Both of these factors serve as stable core income sources for households, contributing a combined 83.9% of Hani households' earnings. Non-farming activities, which include businesses, salaries, land rent, and support from relatives, account for 13.2% of their overall income, while farming (including agricultural crops, livestock, fruit, and forest products) provides 2.6%, and other miscellaneous sources contribute 0.3% (see below Figure 13).



**Figure 13** Income Categories of Hani Households in 2021

Xu (1990) investigated the income sources of Mengsong in 1989. At the time, the primary income source was rice, with 68% of total income coming from this source, while livestock and fruit and forest products contributed 16% each. In summary, all income (100%) was derived from farming at that time. The income sources of Hani households experienced a significant change from traditional farming to tea production by 2021, which indicates that tea livelihoods were adopted by Hani households (see Table 8).

**Table 8** Hani household income source comparison between 1989 and 2021

Year 1989 (Xu, 1990)		Year 2021	
Income Sources	%	Income Sources	%
tea	0	tea	76.2
non-farming	0	non-farming	13.2
government subsidy	0	government subsidy	7.7
rice	68	farming	2.6
livestock	16		
fruit & forest products	16		
others	0	others	0.3
Total	100	Total	100

Among the 13.2% of income from non-farming categories, seasonal labor and land rent have become popular choices, adopted by 20-30% of Hani households. However, the income level from these sources remains relatively low, less than RMB 10,000. On the other hand, businesses, migrant work, and salaried jobs, which can earn a significant amount of money (approximately RMB 30,000 - 60,000), are only held by 5% of Hani households.

### 3. Tea Intensification

The above livelihood profile indicates that the general structure of Hani livelihoods consists of a core focus on tea production, supplemented by additional non-farming activities. In the following sections, we will provide detailed information on how tea livelihood strategies have been employed by Hani households to improve their living standards.

#### 3.1 Start from the endowment of ancient tea

While strolling along Mengsong Street one morning, I encountered Ahong, a Hani female trader who owns a tea shop. Ahong had previously worked as a migrant worker in Beijing, but when she became aware of the rising tea prices, she decided to return to Mengsong and start her own tea business. She invited me for a cup of tea, which is a typical scenario where local traders attempt to establish new business

connections. I introduced myself as a social investigator, aiming to study the impact of tea on local life.

According to Ahong, the effect of tea on local life has been dramatic, transforming Mengsong from a poor region to a prosperous one. However, different villages in Mengsong benefit to varying degrees based on their endowments of ancient tea resources. As an example, she cited Manjiajiao, a village with the highest income due to their largest ancient tea garden. This prompted the question: Are there significant differences in tea income among the six villages in Mengsong?

Tea income ranking of the six Mengsong villages is presented in Table 19 below.

**Table 9** Household's Tea Income Rank of 6 Villages

Rank	Village	Households' Average Tea Income (RMB)
1	Manwoke	140000.00
2	Manjiaganbian	123000.00
3	Manjiapokan	115000.00
4	Manjiajiao	67000.00
5	Manmaiyaoyao	56000.00
6	Dazai	48400.00
Mengsong Community		72650.00

Contrary to Ahong's statement, the village with the highest tea income is Manwoke, not Manjiajiao. The table shows a significant difference between the villages, with three having tea incomes above the Mengsong community average and three having incomes below. The highest-ranked village, Manwoke, has nearly three times the tea income of the lowest-ranked village, Dazai.

Table 10 presents the households' tea incomes alongside their ancient tea area (Mu), old tea area (Mu), and young tea area (Mu) for the six villages.

**Table 10** Household's Tea Income from Different Tea Sources

Rank	Village	Tea income (RMB)	Ancient tea (Mu)	Old tea (Mu)	Young tea (Mu)
1	Manwoke	140000.00	10.9	20.0	10.0
2	Manjiaganbian	123000.00	5.4	19.5	9.0
3	Manjiapokan	115000.00	4.3	30.0	10.0
4	Manjiajiao	67000.00	4.3	10.0	10.0
5	Manmaiyaoyao	56000.00	1.3	18.0	16.0
6	Dazai	48400.00	1.2	20.0	8.5

Table 10 illustrates that the tea income ranking correlates well with the rank of the ancient tea area. Manwoke village, which has the largest ancient tea holdings, also has the highest tea income. This village has double the ancient tea holdings of the middle three villages (Manjiaganbian, Manjiapokan, and Manjiajiao). The tea income from the two least villages (Manmaiyaoyao and Dazai) is only half of the middle three villages.

Local informants attribute the differences in tea income to historical reasons. Half of Manwoke village's population moved to Huisala in 1980 since Huisala, another village in Mengsong, is located at a lower altitude and is better suited for rice cultivation. As a result, the remaining households in Manwoke village received twice the amount of ancient tea trees during the first land redistribution in 1984. Manmaiyaoyao and Dazai were initially a single village that received immigrants from Nannuo and Banzhang (Hani communities approximately 50 kilometers away in the neighboring Menghai County) in the 1930s. By 1946, the village was divided into two, and the original ancient tea holdings were shared between them, resulting in relatively low per-household holdings in both villages. The remaining three villages exhibit similar ancient tea holdings of 4-5 Mu per household as no significant migration events occurred in their histories.

In the context of the old tea holdings, four villages share a similarity with approximately 20 Mu per household. Manjiapokan village has the largest holding with 30 Mu, while Manjiajiao village has the smallest with 10 Mu. The old tea holdings of

these two villages are quite distinct from the average level and significantly impact their tea income, even though they possess similar amounts of ancient tea. The reason for Manjiyajiao village's smaller old tea area is its lower altitude swidden lands, which were previously used for rubber plantations before the tea boom. In contrast, Manjiapokan village is located near a national wasteland, providing more space for tea cultivation.

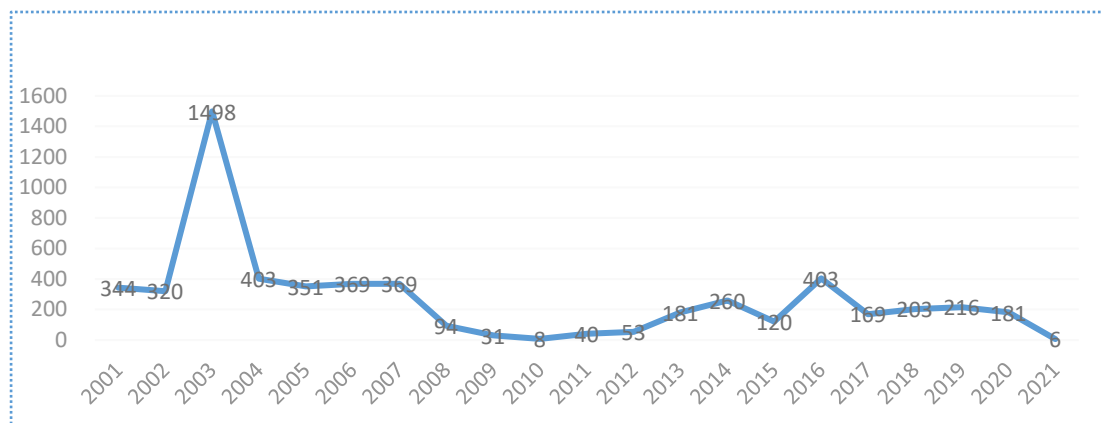
Ancient tea is crucial for a household's tea income. It was historically distributed among all villages, and households had no control over their holdings. Consequently, each household strives to manage their ancient tea holdings effectively to maximize productivity. As a result, 69.8% of households believed their management in ancient tea gardens had improved, while 24.9% thought their ancient tea gardens had worsened. The primary reasons for the improvement or maintenance of ancient tea gardens include the adoption of good practices such as no deforestation, no pesticide and chemical fertilizer usage, and no heavy picking of tea leaves. These households possess local knowledge to manage ancient tea gardens effectively.

The significant difference in tea income can be primarily attributed to a household's ancient tea holdings. The differential ratio (maximum/minimum) in ancient tea area is 9.08, while the ratio in tea income is only 2.89, indicating that income disparities have gradually diminished due to later tea plantations. Sample data reveals that household's total tea income is 43.9% from ancient tea, while 37.6% comes from old and young tea combined. Consequently, expanding tea lands has become the primary strategy for households after the tea boom, rather than preserving ancient tea gardens.

### **3.2 Extend the natural asset of tea land**

Land is the primary natural asset of tea livelihood. The sample household data indicates that a total of 9,160 Mu of tea, comprising either old or young tea, was planted by 222 Hani households. Out of these tea areas, only 31% (2837 Mu) was planted between 1984-2000 (the first land distribution period), while 69% (6323 Mu) was cultivated after 2000. The tea plantation curve (see Figure 12) demonstrates that

the peak of tea plantation occurred in 2003, the same year the land conversion program was implemented. After that, tea plantations align well with tea price fluctuations, peaking in 2007, declining from 2008-2010, and rising again thereafter. In 2016, the poverty alleviation program was implemented in Mengsong, leading to a smaller wave of tea plantation expansion driven by policy stimulation.



**Figure 14** Tea Plantation Curve in 2001-2021 (unit: Mu)

Examining the per capita swidden area distributed in 1984 (refer to Figure 6), four villages received 6 Mu, one village received 3 Mu, and another village received 9 Mu, resulting in an average community level of fewer than 6 Mu. The per capita tea plantation area in Mengsong is 8.6 Mu (sample household average), significantly greater than the household's per capita swidden area. As a result, it can be estimated that after swidden lands were fully utilized for tea planting, households expanded tea plantations into public areas such as collective wasteland & forest, national wasteland & forest, and natural reserves.

Sida's case exemplifies the land extension process:

- 1993-1997: Planted 4 Mu of tea on swidden land;
- 2003: Opened a 20 Mu area for tea on village wasteland;
- 2007-2012: Planted 10 Mu of tea on swidden land;
- 2015: Planted 9 Mu of tea on swidden land;
- 2021: Planted 3 Mu of tea on father-in-law's swidden land.



In summary, Sida planted a total of 46 Mu of tea. With a household of five members, the per capital tea area is 9.2 Mu. Among this land, 26 Mu were swidden (either their own or gifted by relatives), while the remaining 20 Mu were extensions into collective areas.

The case of Sida is popular in Mengsong. Table 14 presents villages in Mengsong where households own tea plantation in public forests. On average, within the community, there are 68% households with a mean area of 10.1 Mu tea in public areas. Historically, planting tea in forested areas has been a Hani tradition. They would practice slash-and-burn agriculture, cultivating upland rice or tea for several years before shifting to another forest area. However, tea cultivation expansion into forest areas was officially banned under the protection law after 2018, as mentioned by Lijie, the vice director of the community administration. Over the last three years (2019-2021), no further tea expansion into forest areas was reported, as monitored by the community administration and natural reserve station. Tea cultivation was only observed on a few marginal lands. Land expansion ceased in 2021, as illustrated in Table 11.

**Table 11** Households Planting Tea in Public Areas

Village	No. of household percentage (%)	Average tea land (Mu)
Manwoke	65	16.8
Manjiaganbian	90	6.2
Manjiapokan	25	11.0
Manjiajiao	81	14.5
Manmaiyaoyao	64	5.9
Dazai	78	10.6
Mengsong Community	68	10.1

As tea cultivation areas could no longer be expanded, tea land renting emerged as an alternative for households seeking to cultivate more tea. In fact, land renting is not a new concept. The earliest known case dates back to the early 1990s, when Atu, the former master of Mengsong Primary School, rented land from the Jiage household in Manjiyajiao village. Upon closer examination of their transaction, it was discovered that Atu had paid both for the land and the bamboo, which, at the time, was considered valuable, whereas tea was not. Consequently, the Manjiyajiao village requested for the return of the tea since Atu did not compensate for its value. Several cases of outsiders renting tea gardens from Mengsong households at the inception of the industry were also documented. As these individuals were aware of the impending tea boom, they capitalized on the local population's lack of knowledge.

In the community, approximately 20.3% households were involved in tea land renting. Out of these rentals, 30 transactions were conducted between community members, accounting for 76.9 percent of tea land contracts. Tea land rentals were typically facilitated by an exchange between a household with abundant tea land and one with limited land resources, often involving relatives or friends. The transference of land was not solely motivated by financial gains but was also regarded as a form of support for the tea land deprived party. For example, Fanei rented a 20 Mu tea plot from her relatives at the cost of RMB40,000 for a 40-year lease. This equates to a modest RMB50/Mu annually. In June 2019, her niece attempted to rent tea land but was unsuccessful in price negotiations. The landowner demanded RMB1,000/Mu per year as they were neither relatives nor close acquaintances. As such, Fanei secured a lower price due to her familial ties, whereas her niece could not, owing to their lack of close social connections.

In Manmaiyaoyao village, there is a limited availability of ancient tea. Consequently, some wives from other villages request a portion of ancient tea land from their parents as a gift. Occasionally, the parents provide the land freely, while other times, they impose a reasonable rental fee to mitigate the loss faced by her brother, as the land generally belongs to him. Several cases of this practice were observed during my stay in the village. For example, during a gathering night where tea land renting was discussed, Lujie (Yang Jianrong's wife), Bubo (Eryong's wife), and

Santu's wife (whose name I didn't obtain) all mentioned that they had acquired tea land from their parents. Consequently, tea land renting serves as an occasional supplement to a household's tea holdings.

Generally, tea extension was a widespread strategy employed by Hani households to enhance their tea livelihood due to the impacts of policy and market dynamics. Hani households expanded their tea plantations to encompass all their swidden lands and even public areas. However, after 2018, further extension was prohibited by the forest protection law.

### **3.3 Investment in tea equipment as physic asset**

Tea equipment serves as a physical asset for tea livelihood. This category of assets includes machinery used for tea plantation, garden management, processing, sale, and additional tasks. In the realms of tea plantation and garden management, relatively inexpensive tools such as hoes, billhooks, baskets, and others are used for tasks such as digging land, clearing grass, and pruning leaves. These tools are acquired by households through market purchases. A gasoline-powered grass mower, which costs approximately RMB 1,500 to 2,000 per set, is the most expensive piece of equipment in this category. It is utilized to cut grass before and after the tea harvest, and nearly every household possesses one. The mower's owner can offer this equipment as part of their labor, priced at RMB250 per day, including RMB20 for gasoline.

Motorcycles and tricycles are essential equipment for local transportation between villages and fields. In the past, Hani households utilized tractors to transport labor, production materials, and products to and from the fields. More recently, tractors have been replaced by tricycles, as the latter is faster and more robust (see Figure 13). Typically, a household owns a tricycle for transportation purposes, as well as several motorcycles or e-motorcycles for personal travel. Conversations with Sandi, a local mechanic in Manmai Yao village, revealed that while households used to purchase non-branded tricycles at a lower price of RMB8,000, they have increasingly opted for branded tricycles costing more than RMB15,000 after 2016.

Tea rooms are spaces furnished with a wooden table, seating, and a set of tea-cooking pots for tea-drinking purposes (see Figure 13). They can either be constructed as separate rooms or designated areas within a house's lobby and serve as a fashionable means to receive tea-drinking guests, including traders and friends from outside the village. Most households establish tea rooms to host visitors and potentially conduct tea business. The most significant expense associated with a tearoom is the large wooden table, made of a single wooden board, which can cost several thousand RMB.



**Figure 15** Examples of Tea Equipment of the Hani Households

Hani households sell fresh or dry tea leaves to traders depending on the specific demands of the buyer. In most cases, ancient tea is sold as fresh leaves, as traders prefer to process it using their agents' machines rather than relying on each household's machinery for maintaining higher quality control. On the other hand, young and old teas are sold as dried leaves, as traders do not need to process these less valuable products as much. If the price of fresh leaves is unsatisfactory, households may process the leaves into dry tea and wait for a better price. Thus, tea processing equipment is vital for Hani households. Sample household data indicates that 95.9% households have at least one processing equipment.

The most popular tea processing equipment includes (refer to Table 12):

**Table 12** Tea Equipment Invested by Hani Households in the Last 10 Years

Equipment Category	Frequency	Percentage
Green-removing stove	198	89.19
Solar House	192	86.49
Rolling Machine	183	82.43
Dry Machine	151	68.02
Green-removing Machine	119	53.60
Fermentation Table	119	53.60

**green-removing stove:** Constructed using cement and bricks and covered with an iron pot, this stove costs approximately RMB 800 per set. Households use wood fire (previously, now switched to gas) to cook and stir tea by hand for green removing. This is primarily used for processing ancient and old tea types. Each household has, on average, 2.5 sets.

**solar house:** Constructed with steel and PVC materials at a cost of around RMB300 per square meter. Households place tea leaves in the solar house after rolling, allowing them to dry under direct sunlight. Each household has, on average, 142.1 square meters of solar house space.

**rolling machine:** Purchased from the market at a price of about RMB5,000, households use these machines to roll tea leaves after the green-removing process. Each household owns, on average, 1.3 rolling machines.



**Figure 16** Tea Stove, Solar House, and Rolling Machine  
(from left to right)

The following three equipment types have also been chosen by over 50% of the households:

**dry machine:** Purchased from the market at a price of about RMB15,000, this machine is used to quickly dry tea at high temperatures to enhance aroma. Each household has, on average, 1.6 dry machines.

**green-removing machine:** Bought from the market at a price ranging from RMB 9,000 to 12,000, households use this gas-fueled machine to process both old and young tea leaves for the green-removing process. On average, each household has 1.2 green-removing machines.

**fermentation table:** Assembled with a draught fan, a bamboo-weaved or wooden table, this piece of equipment costs approximately RMB500 per meter. Households place fresh tea leaves on the table and control moisture and temperature conditions for fermentation. Each household has, on average, 9.5 meters of fermentation table space.



**Figure 17** Dry Machine, Green-removing Machine, and Fermentation Table  
(from left to right)

In the realm of tea production, the first three types of equipment cater to the basic needs of households, whereas the next three primarily serve specialized market demands. Only a small percentage of households elect to adopt other tea processing equipment, such as a shape machine, which is typically only chosen upon the request of a trader.

Over the past decade, the average investment in tea equipment has amounted to RMB51,375.59. When broken down annually, this equates to an expense of RMB5,137.5. In comparison to the annual tea income, which stands at RMB110,992.74,

this investment can be considered relatively insignificant. Additionally, government policies have facilitated access to equipment by providing a 15-30% subsidy on their purchase. This financial support enables households to obtain necessary tea processing equipment without imposing undue financial strain.

### **3.4 Seasonally hire labor (human asset) through market**

Statistical data from sample households reveal that a typical Hani household consists of 4.77 members, with 2.98 of them constituting the labor force—the primary workforce responsible for tea production. However, an average of three laborers per household is deemed insufficient to manage tea production on a large scale, as the average land area spans 32.6 Mu.

Historically, Hani communities have coped with labor shortages during the farming season by engaging in labor exchange. This tradition persists today, as Hani households involved in maize farming, for example, coordinate with friends and relatives to collectively complete planting and harvesting tasks. Members of these cooperative groups are typically not paid cash wages; rather, the host family provides food for the participants while they work. The moral underpinnings of this mutual support system reflect the Hani culture's longstanding history of communal cooperation. Instances of such assistance can be observed within clans, which often provide labor support for significant events such as weddings, funerals, or the construction of new homes. Despite the viability of this traditional labor exchange approach, it is insufficient to address the demands of tea production, as labor shortages are commonplace for all households during the tea picking season.

The seasonal labor requirements for tea production are particularly pronounced during the spring tea season, which spans from mid-March through the end of April. After approximately one month, the summer tea season commences, lasting from the end of May through July, followed by the autumn tea season from the end August to October. The spring tea season is most crucial, as it commands the highest prices and represents the shortest time frame. Given the urgency and brevity of this season, Hani households are preoccupied with their own harvesting needs and are thus unable to assist one another. Consequently, they must resort to hiring

seasonal workers from areas without tea production commitments and who are capable of traveling to Mengsong.

Prior to 2020, Mengsong was home to a labor market on its main street, primarily attracting workers from Myanmar who crossed the border in search of tea production jobs. At the onset of the spring tea season, Hani households would select laborers from this market, providing them with accommodation and employment throughout the duration of the season. However, the enforcement of strict border controls in 2020 led to the replacement of this physical market with an online platform. Hani households subsequently sought to hire Dai laborers, who typically reside in lowland Dai communities, making arrangements through personal connections on WeChat. Unlike the previous arrangement with Myanmar laborers, Dai workers commute to Mengsong daily, requiring households to cover their wages and transportation costs.

In 2020, the labor cost was RMB100 and the transportation fee was RMB20, totaling RMB120. Compared to RMB60 in 2019, the labor cost increased significantly, reflecting the labor shortage due to the absence of cheaper Myanmar labor. This labor shortage also led to a change in the pricing structure. In 2020, the labor cost was calculated on a per-day basis (assuming an 8-hour workday). Village residents reported that Dai laborers arrived and departed punctually, picking approximately 15 kg of fresh tea leaves per day. Regardless of the urgency of the situation, Dai laborers never performed additional work.

To improve efficiency, labor pricing changed to RMB10 per kilo for old tea and RMB15 for ancient tea in 2021. As a result, laborers could harvest more than 15 kilos in a single day. Sida mentioned that one of his laborers set a record by picking 51 kilos in a day. However, the new pricing system has had some negative consequences, with villagers complaining that laborers now prioritize lush tea gardens and elect to harvest more than “one bud and two leaves” in order to increase their productivity and income.

The rise in price incentivized Mengsong laborers to offer their services in exchange for payment. For example, in 2021, 34.2% of the households in Mengsong sold labor, earning an average income of RMB9,426.2. In Manmai Yao village, Xiangpei,



a woman described as a labor organizer, operates a WeChat labor group consisting of approximately 22 married women from the village. Xiangpei explained that they can offer their services as laborers because their tea gardens, which are situated at higher altitudes, germinate several days later than others. Some women with smaller tea gardens also sell labor after completing their own picking tasks. Xiangpei shares labor requests within the WeChat group, and members coordinate with each other to fulfill the requests, allowing older women to provide up to 100-150 labor-days of service per year. Younger women are less available due to their busier household schedules.

In addition to tea picking, the secondary labor needs include digging and loosening the soil in the tea gardens every two years. This task requires two labor-days per mu of tea garden and is generally scheduled for the winter to help eliminate soil-dwelling pests. Xiangpei's group also undertakes this work. While Xiangpei's group focuses on tea picking and soil work, men provide labor for more technical tasks such as weed removal using mowers (RMB250 per labor-day), construction work (RMB200 per labor-day), and electric welding (RMB300-400 per labor-day). These tasks are performed by men with the necessary skills, and the rates for these tasks are higher compared to the RMB130 per labor-day rate for tea picking and soil work. Consequently, Hani men must choose between technical work or idleness, with limited opportunities available in technical work. At times, non-technical tasks requiring male labor remain unfulfilled. For instance, Paihen struggled to find laborers for a project involving forest clearing for construction purposes, lamenting that the task was simple but the local men were not take it up. He complained to me *"Cut tree is so easy but our man is so lazy, they don't want to work on it."*

Sample household data in 2021 indicate that 85.1% of Mengsong households employed laborers at an average cost of RMB20,851.6. At the same time, 34.2% of households in Mengsong sold labor, earning an average income of RMB9,426.2. Considering the total labor income (RMB716,390 across all sample households) in relation to the total labor cost (RMB3,940,950 across all sample households), Mengsong households' internal labor contribution constituted only 18.2% of the overall labor supply (81.8% supplied by external labor sources).

Following the implementation of COVID-19 border control measures in 2020, labor migration from Myanmar has been severely impeded, resulting in a rapid increase in labor costs. Simultaneously, the retail price of fresh tea in the region has not adjusted accordingly. In 2020 and 2021, the price of old and young tea remained relatively stable at RMB15 per kilo, while ancient tea (particularly summer and autumn tea) stabilized at RMB30. Comparing these figures with the labor cost of RMB 10 per kilo, it becomes apparent that the margins for old and small fresh tea during the summer and autumn seasons are approaching break-even levels. Consequently, some households opted to abandon harvesting old and young tea during these seasons, focusing their efforts solely on spring tea collection. Sample data from 2021 reveals that income from old and young tea during the summer and autumn seasons accounted for a mere 31.6% of total spring tea income. Although spring tea prices are two to three times higher, its productivity is only two-thirds that of summer and autumn tea. As a result, it can be extrapolated that the overall value of summer and autumn tea should fall within the range of 60%–70%. This situation deteriorated further in 2022, with the price of summer and autumn fresh tea dropping to RMB 12–13 due to fewer traders purchasing the product, while labor costs soared, nearly reaching RMB12. Consequently, an increasing number of households abandoned their tea harvesting ventures.

### **3.5 Manipulate social asset for market access**

Social assets, while intangible, are crucial for gaining access to productive assets and exerting considerable influence on access to the tea market for Hani villagers. The Hani people possess a strong tradition of kinship, blood relations, and shared geography, which has been revitalized to cultivate social assets among their broader network of relatives and friends. In an effort to secure access to market resources such as information, productive assets, and the final tea market, villagers actively manipulate their social assets according to their social distances.

### 1) relative and membership

The Hani people of Mengsong typically practice endogamy, with marriages occurring between Hani individuals from different clans who reside within or near the community. Endogamous marriage results in a closely interconnected network of family members within a confined area. Household property inheritance follows a patriarchal lineage, with parents typically selecting the youngest son to inherit their assets, while older brothers receive portions of property (such as land) to establish their own households in close proximity. Daughters are excluded from land inheritance and are instead provided with gifts upon marriage, such as clothing and productive animals (e.g., poultry, piglets, or heifers), to begin their new households. The social networks formed and maintained through these kinship and blood relations are reinforced by communal gatherings and celebrations during Hani festivals.

In addition to kinship and blood relations, a strong sense of geographic membership exists among the Hani people and serves as another vital social asset. Villagers living within the same village interact frequently and maintain close ties through face-to-face engagements. As a culturally rich minority, the Hani people celebrate numerous festivals throughout the year, participating in village-wide events that strengthen collective bonds. Activities such as collectively purchasing livestock for slaughter, organizing communal feasts, hosting cultural performances, and engaging in sporting competitions all contribute to the shared geographical sense of identity among villagers.

Interestingly, the majority Han population often prioritizes affinity and consanguinity over geographic membership due to resource scarcity and competition within the village. Hani communities, however, operate differently, as they rely on abundant natural resources obtained through land shifts from one area to another. As they adapt to new environments, the Hani people seek the support and cooperation of their fellow villagers, actively participating in communal activities to nurture and maintain their shared geographic membership.

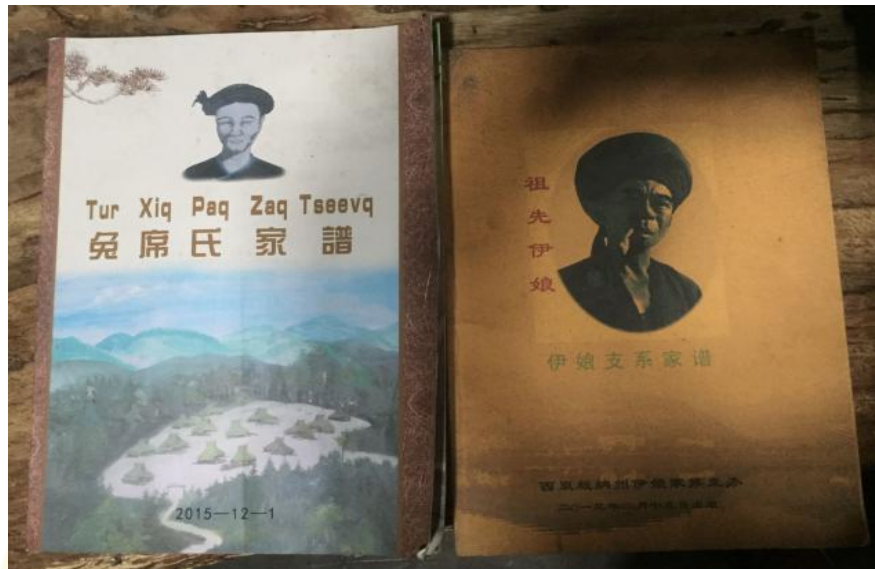
Today, grid and cooperative organizations are increasingly being applied by administrations to strengthen local membership. Grids typically consist of ten households living in close proximity and are designed to meet certain policy requirements for collective actions, such as public sanitation and border guarding. Agricultural Plantation Cooperative (APC) is the largest cooperative led by the Community Communist Party, and all households in Mengsong are members. APC is presented on the government website as an agency responsible for implementing many government projects, including tea management, technology training, and ancient protection. A key function of APC is land renting, with all paddy field management rights in Mengsong being collected by the cooperative. Some lands have been rented to external traders, while others are used by the cooperative itself for planting radish, tomato, maize, and beans among other crops.

Membership in grid and cooperative organizations is crucial for accessing policy benefits such as subsidies and tea training. As stable benefits are derived from government subsidies, village membership has been significantly strengthened. Villagers have increasingly joined as grids or village groups to engage in more common activities, particularly regular border protection via group rotation in recent years.

During my previous visit in 2003, I had not heard Hani people discussing their clan. However, in recent visits, clan information has been frequently shared with me. Clan books have become popular in Mengsong (see Figure 16), with each clan compiling a book by searching for all clan members within Mengsong and beyond. This process allowed households in Mengsong to establish new connections with their distant clan relatives. Improved transportation by car and communication through mobile devices have facilitated long-distance connections, extending the social scale of Hani relatives.

The number of guests at households' banquets can illustrate this extension. Traditional Hani banquets were only hosted for three main reasons: marriage, a passing, and new house construction. In addition to these, several other occasions are now being celebrated with banquets, such as childbirth, a child's first month, and decennial elder's birthday celebrations. The participation of more and more distant relatives has

increased significantly, as evident in the gift totals collected at weddings, which have shown a substantial growth over the years.



**Figure 18** An Example of Hani Clan Book

## 2) friendship

Wuer is a friend of mine whom I stayed with during my previous visit in 2003. At that time, he and his older brother were both over marrying age but remained single due to financial constraints. Wuer was able to marry in 2016, thanks to the high income he earned from tea production. Upon learning of my visit, Wuer invited me for dinner at his new home. His wife sought assistance from a lady (Daduo's daughter-in-law) to prepare the dinner. During the meal, the two ladies revealed that they were both from other villages and had formed a close friendship as newcomers to Manmai Yao village. Every weekend, Wuer's wife would help her friend fill out a COVID-19 information sheet online, since her friend had limited literacy and required assistance in submitting the weekly report for her son's school entrance.

Friendships are personal choices that can be established one-on-one or within a group. In Mengsong, many friendship groups exist, such as Gusan's group. Formed in 2006, this group of over ten women would engage in various activities during leisure time, including picnics and group savings through joint labor (see Figure 17). If the

budget permits, they also travel to nearby attractions, such as Jinghong city, to participate in recreational activities together.



**Figure 19** Women Group in Picnic and Daily Work

There are several types of friend groups present in Mengsong villages. Typically, one woman belongs to one group. Additionally, there are youth groups and aged groups in the village. The youth group consists of a small, mixed group of boys and girls who usually choose to partake in KTV (karaoke), eating, and drinking together. Due to the repercussions of the epidemic, KTVs and bars in Mengsong were closed, prompting the youth to switch to alternative activities, such as eating and drinking at home. The aged group is larger, with about one group existing in each village. This group primarily comprises old women who congregate approximately once a month to sing or dance at the village center's hall. They also pool funds as a group to pay for their gatherings' food.



**Figure 20** A Youth and a Senior Group (from left to right)

In contrast to women, youth, and aged groups, there are no distinct men's groups in the village. Adult men usually participate in their wives' group activities or privately share meals and drinks with a select few close friends. These friends can be the man's relatives, village members, co-workers, classmates, etc. The individual characteristics that attract men to each other are essential in the formation of close friendships. The number of close friends a man has may vary depending on his personality and life experiences.

### **3) social asset manipulated for market**

Having been invited to attend several informal family dinners (such as those held after slaughtering a pig), I often encountered local village leaders at these events. This led me to believe that the villagers place significant importance on their social connections with village leaders. Despite every village displaying policy information on a board, I surmised that there may be no room for local power dynamics to search for. As such, I decided to shift my focus to a related aspect — market access — rather than investigating the political implications of these connections in how local social assets have been utilized for livelihood purposes.

Evidently, social assets have been extensively manipulated by villagers to support their market access. However, these applications depend on varying social distances. The most immediate social asset is employed to aid market information access, facilitated by regular social interactions. Information sharing is vital for the market economy. Market trends, new product standards, and novel processing technologies are swiftly disseminated through one-to-one interactions during social communication. Almost every villager has an extensive number of WeChat friends and groups, encompassing all kinds of social connections mentioned above. Through WeChat, villagers can acquire a variety of market information on tea prices, labor, traders, training, policies, subsidies, etc. Online information sharing is rapid and cost-free, making it easily accessible to a vast network of social connections. My interview form was also distributed online via WeChat, shared by local cadres with participants. Every year, the community sets a price reference for tea and labor to prevent internal

price conflicts. This price is disseminated and adhered to through social media, ensuring transparent and smooth local transactions.

The second level involves accessing marketed assets through reciprocal exchange. This form of exchange only occurs between households with close and stable social relationships. The giver anticipates receiving in the next scenario, sustaining a long-term, reciprocal loop. As shown above, labor is exchanged amongst close relatives or friends, along with tea equipment. The exchange transpires between one party possessing the asset and another party requiring its urgent use. In recent years, tea lands, as crucial livelihood properties, have become a target for social exchange. They were either sold at a low price or given freely to the daughter's household, occasionally serving as a supplement to the daughter's non-inheritance arrangement. Several cases in Manmai Yao village illustrate this phenomenon. For example, Sida's mother planted a tea field (approximately 2 Mu) and gave it to Sida's youngest sister, whose household had limited tea lands. Sida's wife received 3 Mu of land from her parents in Yakou village (a village nearby Manmai Yao with a more abundant supply of tea lands). Songying, who married a man and moved to her husband's residence in Anhui province, returned to Manmai Yao with her husband as unable to adapt to the colder climate in his hometown. Consequently, her parents provided her with tea lands upon her return.

In a market economy, local labor, tea equipment, and tea land become commercialized commodities. Access to these commodities is mainly through market transactions. In this context, social access based on local tradition can either facilitate market transactions for these commodities or supplement them, providing a form of protection for households that might not have enough market power to secure all the resources they need.

A third mode of access to the tea market comes through agent relationships. Tea traders serve as essential intermediaries between tea producers, such as villagers in Mengsong, and tea market customers in urban areas. These traders visit Mengsong annually to purchase primary processed tea (dry tea leaf), which they then pack and send to their factories for production of final products with Quality Safety (QS)



certification for sale in the market. Without the tea traders, villagers' tea products cannot be sold in the end market.

In recent years, some tea traders have partnered with local Hani villagers, establishing them as tea agents and setting up tea collection points in Mengsong. The COVID-19 pandemic's control measures over the past three years have impeded tea traders' direct entry into the area, accelerating the establishment of tea agent networks. For instance, Saner has worked for Chensheng, a well-known tea trader, as a tea transporter for several years, utilizing a truck that his sister gifted him. As a result, Saner is now Chensheng's tea agent, and in 2022, he collected about 10 tons of dry tea and sold it to Chensheng, generating a noteworthy profit from the price difference and thus further increasing his wealth.

Some younger generations with educational backgrounds have also chosen to become tea agents for their own tea businesses. For example, Sida's daughter started her own tea trading business after working for a company in Jinghong and receiving requests from friends to purchase tea. As her tea business became more profitable, she left her previous job to focus on it full-time. Every spring, she visits her village to collect tea from her parents and other relatives. Similarly, Geda, the son of a local village cadre, returned to Manmai Yao village to become a tea trader after working in various jobs in the city.

Becoming a tea agent is an emerging choice for Mengsong households, and most tea agents are wealthier than other villagers. For instance, Geda and Saner in Manmai Yao village both reportedly had an annual net income of over RMB200 thousand in 2021, nearly double that of other villagers. Lijie (the deputy director of Mengsong) also mentioned that there were more than 160 tea agents in Mengsong with primary tea processing licenses.

The tea agent business model relies on structured social relations. The payment schedules between agents, traders, and villagers differ, meaning that agents must either obtain cash in advance from traders or postpone cash payments to villagers. Consequently, all parties involved require a significant degree of social capital to reconcile these discrepancies in payment schedules. Additionally, successful negotiations for tea quality and pricing necessitate high levels of social capital. Over

time, interdependent social relationships develop, allowing agents to leverage these connections when market conditions change. In years with higher demand, agents can exploit their social ties for better purchasing opportunities, whereas in years with increased supply, villagers must use their social networks to negotiate better selling prices, ultimately striking a delicate balance.

### **3.6 Configure financial asset for living and investment**

Financial assets serve both as means and outcomes of livelihood strategies. Households strategically strive to earn income, which becomes their financial assets and indicator of livelihood outcomes. As a means, households can allocate their income and other financial assets, such as loans and deposits, towards investing in production, reproduction (living), or expanding their production capacities.

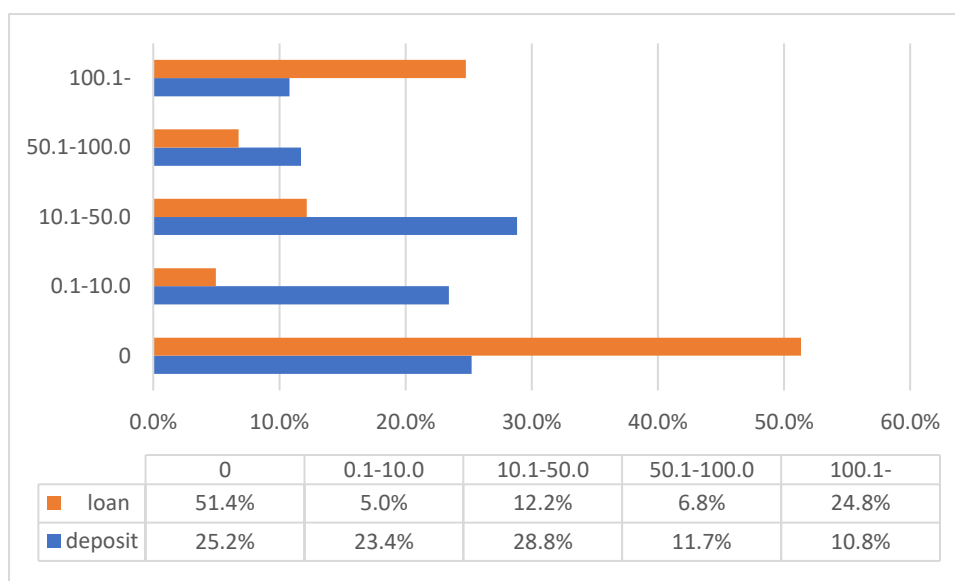
#### **1) net income**

Data analysis of the sampled households indicates that Hani households have a per capital net income of RMB 7,189 in 2021. By calculating the average household size of 4.77, the Hani per household net income amounts to RMB 34,292.

#### **2) deposit & loan**

The sampled household data reveals that 25.2% of the households have no deposits, and more than half (52.2%) have less than RMB10 thousand in deposits. Only 22.5% of the households have over RMB 50 thousand in deposits (refer to Figure 19).

For loans, more than half of households (51.4%) have a high level of borrowing, with loans exceeding RMB100,000. Consequently, 24.8% of households have low deposits and high loans.



**Figure 21** Household's Deposit and Loan in 2021  
(unit: RMB thousand)

### 3) investment in fixed assets

Over the past ten years (2012-2021), Hani households' total investment in fixed assets reached RMB298,650 - 8.71 times their net income in 2021. This significant investment can explain the observed low deposits and high loans among Hani households.

### 4) life equipment

Approximately 89% of Hani households' annual expenditure goes towards life equipment such as furniture, large electrical appliances (TV, washing machine, freezer, refrigerator), vehicles, and new houses.

A new house is the most expensive life equipment for Hani households. A construction team from Lincang was invited by the government's anti-poverty project to reconstruct poor houses in Mengsong in 2016. After completing the project, the team stayed in Mengsong to work on private contracts. The estimated construction cost for a new house lies around RMB 1,200 per square meter, including the cost of materials and labor. Typically, Hani households spend RMB400-800 thousand to build a new house with an area of 300-600 square meters. This cost excludes furniture and

electrical appliances, which require an additional RMB100 thousand. Therefore, a household may need RMB500-900 thousand to move into a new house.



**Figure 22** An Example of Hani's New House Building

Usually, if a household has secured more than half of the budget, they will initiate the construction of a new house. Payments are made to the construction team in installments based on the progress of the construction. RMB100 thousand is paid at the beginning to procure materials, followed by specified amounts as each floor is completed. If the household lacks the necessary budget, they may take out a loan or request a delay until the next year (usually during the next spring tea season). Lijie mentioned that the government offers low-interest loans (RMB100-300 thousand per household at an annual interest rate of 2.6%), intended for investing in the tea business. However, most of these loans are utilized for constructing new houses, explaining why 24.8% of households have high loans.

Vehicles represent another considerable expense in fixed assets and a popular trend among Hani households. Cars are primarily used for transportation to downtown areas or more distant destinations. Households may need a vehicle to transport their children to school, take elders to city hospitals, or carry tea to the market. Recently, self-driving tours have become popular among Hani households for leisure, social, and business purposes. A new car (or jeep) costs between RMB 100-200 thousand, while a

second-hand vehicle costs approximately RMB 50 thousand. Households usually purchase cars without taking out loans.

By the end of 2021, 68.0% of Hani households owned a car, and 49.5% owned a motorcycle. In comparison, the vehicle ownership rate among rural households in China was 26.4% in 2020 (National Statistics Bureau, 2020). Mengsong has a relatively high vehicle ownership rate. This investment in cars and motorcycles reflects the adoption of modern lifestyles and continues to attract more Hani households.

#### **4. Livelihood diversification**

Tea-based livelihood in Mengsong is limited by land availability. Due to strict land and environmental policies, local tea land expansion has been halted. Consequently, Hani households do not need to allocate a large portion of their budget to expand tea cultivation areas, with only minor investments required for tea processing machines.

Tea income faced considerable uncertainty during the COVID-19 pandemic, prompting individuals to explore additional income sources. According to estimates by Yang Jianrong, confirmed by Sida, there are several wealthier households in Manmai Yao village, all of which have high additional income. For example, two of these households are tea agents, and one is a construction contractor. Although investing in businesses can be highly beneficial, it also requires significant assets. As discussed previously, tea agents typically need substantial social assets with tea traders. Consequently, only a few households invest in businesses.

A popular investment choice among Manmai Yao villagers is fishponds. Over 30 households have established fishponds in recent years. Typically, those who own paddy fields in valleys with abundant stream water will transform their fields into fishponds, as rice cultivation has ceased due to the tea boom. Sida reported spending RMB 6,000 to rent machinery to dig a pond and an additional RMB 6,000 to construct a wooden agritainment house. Out of the 30+ fishponds, only nine generate an agritainment income of several thousand per year, mainly from tourists coming for fishing and picnics. Although the profit margin is not substantial, villagers have high expectations for future growth.



**Figure 23** A Hani's Fishpond in a Paddy Field

Some households also invest in honeybee and chicken farming within their tea gardens. In 2022, honey prices reached RMB 100 per kilo. After harvest, households sell honey online to tea customers who value its wild quality. A single household can earn between RMB 1000-2000 from honey. However, bee farming is subject to natural risks, including predatory hornets, leading to an unstable profit. As a result, not many households choose to adopt this venture.



**Figure 24** Honeybee Cultivation in a Tea Garden

Lacking better investment options, Manmai Yao villagers seek to reclaim their rented paddy fields. After an irrigation rebuilding project in 2012, Manmai Yao village paddy fields were leased to various external companies and ceased rice cultivation. The most recent lease, in 2019, was granted to a sweet potato company that only paid one year's rent before stopping cultivation and neglecting further payments. Although the lease contract lasts until 2028, villagers desire to terminate it and regain control of their land now.

##### **5. Livelihood outcome: high level of PADI**

Commercialization has become widespread in Mengsong, leading to an increased reliance on cash income to satisfy daily household needs. Thus, earning cash income emerges as both a goal and an outcome of Hani livelihood. The Chinese Statistics Bureau uses the Per-capita Annual Disposable Income (PADI) to reflect the standard of living. Using survey data from sampled households in Mengsong, SPSS programming summarizes Hani household PADI in 2021, as shown in next table.

**Table 13** Per-capital Annual Disposable Income (PADI) of the Hani Households in Mengsong

	Amount of PADI	Frequency	Percentage
	0-10000	35	15.77
	10001-20000	84	37.84
	20001-30000	44	19.82
	30001-40000	23	10.36
	40001-	36	16.22
<b>Total</b>		<b>222</b>	<b>100</b>
Min	500.00		
Max	213150.00		
Ave.	27292.12		
Mid	18911.11		
Standard Deviation	8.189E8		

The PADI for rural residents in Yunnan province is RMB 14,197, and RMB 18,931 at the national level in China for 2021. The average PADI for Hani households in Mengsong is RMB 27,292.12, with a median value of RMB 18,911.11. Using the PADI metric, the Hani livelihood level is significantly higher than both the Yunnan provincial and national levels. It is worth noting that Mengsong had been recognized by the Yunnan provincial government as a poor community in 2012. Through this comparison, we can conclude that Hani households have developed and substantially improved their livelihoods over the years.

### The Appropriate Strategies for Further Development

Despite achieving high cash income, the COVID-19 pandemic in 2020 and beyond has slowed down tea prices and increased labor costs, triggering a potential livelihood crisis in Mengsong. In household survey, 78.8% of participants expressed anxiety regarding tea sales channels or the price ratio between tea and labor. In recent years, government policies have focused on local infrastructure, health-care,



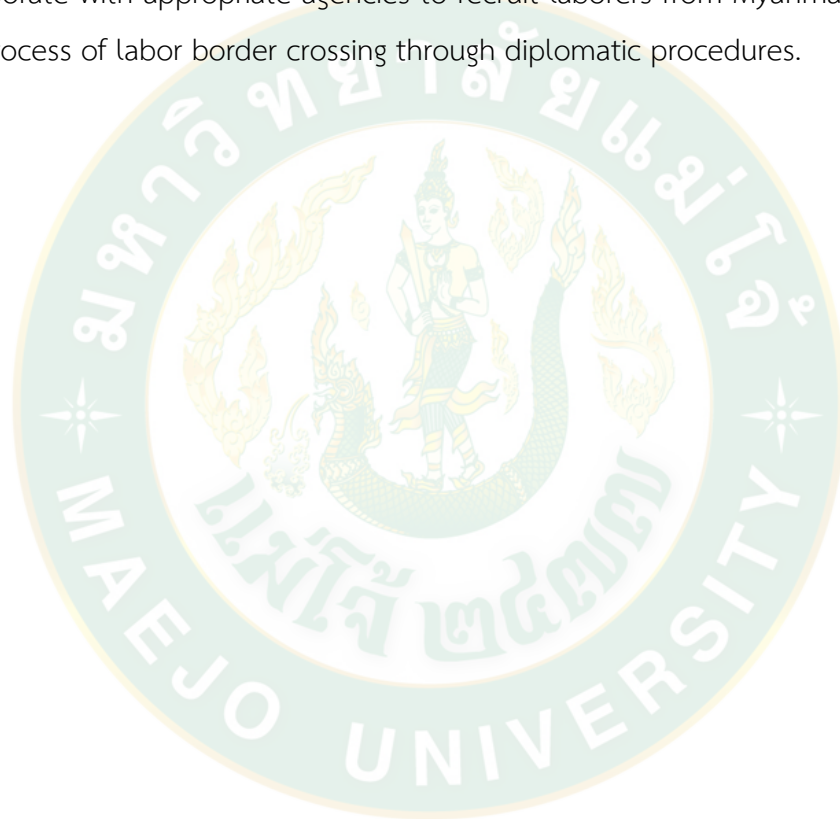
education, and environmental protection. This ongoing support has laid a strong foundation for Hani households to participate in the market.

However, the Hani community requires further assistance from the government to address the emerging crisis. To formulate policy recommendations, the researcher reviewed existing policies and conducted in-depth interviews with community administrators and relevant government office staff in Menglong and Jinghong. Additionally, a focus group discussion with 26 stakeholders was held to explore this topic. Participants highly recommended the following three policies:

**1) Improve the quality of young tea.** As complained by Mengsong administrator, Hani households have ceased young tea harvesting as its low price is attributed to poor quality. The most important reason highlighted by focus group is that the strict Chinese forest policy that prohibits tree cutting has led villagers to avoid removing tree seedlings in their young tea areas. This has resulted in the low quality of newly planted tea. A potential policy should encourage villagers to adopt agro-forestry in their young tea areas, similar to their traditional practices in ancient tea management. As introduced by the Chairperson of Tea Market Association of Jinghong the demand for organic certification is expected to rise in the future market. Subsequently, a further policy chosen by focus group is to support local villagers in forming a cooperative for organic certificate applications. This would enable villagers to recognize the high value of their young tea as a successful organic product in the tea market.

**2) Promote profitable cash crops.** Paddy fields are often rented out following tea booms. The community director has pointed out, households cannot achieve better profit from cultivating grains in the field as opposed to renting. In light of this, the participants of village leaders all agreed a policy of promoting cash cropping for rent fields. According to a villager leader, some villagers are interested in growing cash crops, but they require support from the government in the form of technical, financial, and marketing assistance. The focus group suggested that the government policy could be implemented to encourage Mengsong villagers to become new participants in cash cropping efforts.

**2) Attract labor from nearby areas or from Myanmar.** All participants in the focus group hotly discussed the seasonal labor shortage problem which presents a significant challenge in Mengsong. Labor needs arise during the tea germination period, and to address this issue, they suggested that the government should establish a policy to attract laborers from nearby regions. This could be achieved by publicizing labor needs on its public websites, organizing labor through official channels, and/or offering transportation subsidies for imported laborers. Additionally, the government should collaborate with appropriate agencies to recruit laborers from Myanmar and facilitate the process of labor border crossing through diplomatic procedures.



## CHAPTER 5

### SUMMARY, CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

In this chapter, the researcher will first summarize the research findings. Based on these findings, the researcher will conceptualize local livelihood dynamics as part of the conclusion and discuss the topic of livelihood dynamics in relation to relevant theories and research. The final section offers suggestions for local community and Hani households regarding their future livelihood development, as well as providing recommendations for further research.

#### Summary

The livelihood of ethnic minorities in China remains heavily dependent on natural resources rather than migration, as a majority has opted. This research examines the livelihood development of the Hani ethnic group in the Mengsong community of Xishuangbanna (XSBN) with four objectives: 1) to study external factors that have altered the livelihood of the Hani in Mengsong during the past decades, 2) to analyze local institutional processes under the impacts of external factors, 3) to analyze Hani households' livelihood strategies in Mengsong as a response to their external circumstances, and 4) to formulate appropriate strategies for supporting future livelihood development of the Hani in Mengsong.

Qualitative methods such as documentary analysis, participatory observation, in-depth interviews, focus group discussions, and a complementary quantitative household survey involving 222 randomly sampled households from six Hani villages of Mengsong were conducted. The research findings include:

The government has implemented numerous policies in Mengsong to accelerate the socioeconomic development of the Hani community over the past decades. These policies have comprehensively improved Mengsong's infrastructure and ushered in a new era of commercialization, displacing the traditional Hani

livelihood of swidden agriculture. The Pu'er tea boom in 2007 led to Hani households becoming fully immersed in tea cultivation livelihoods. In order to maximize their tea profits, Hani households intensified their tea production in various aspects.

Firstly, households expanded their tea cultivation areas to include all swidden lands and even public spaces, resulting in an average total tea cultivation area of 32.6 Mu per household. This area encompasses the cultivation of ancient tea, old tea, and young tea varieties. Secondly, over the last decade, households have made considerable investments in tea processing equipment, totaling RMB 51,375.59. These investments have allowed 95.9% of households to own tea machinery and 80% to own essential tea processing equipment (such as green-removing stoves, solar houses, and rolling machines). Additionally, more than 50% of households have acquired advanced equipment (such as frying machines, green-removing machines, and fermentation tables). This enhanced equipment has enabled Hani households to improve their tea product quality to meet market demands. Thirdly, 85.1% of households have invested an average of RMB 20,851.6 (equivalent to 140 labor units) in tea farming through the labor market. Fourthly, households have strengthened their social networks to access market information and engage tea agents, ensuring stable sales channels.

In addition to 83.9% income from tea business and government subsidies (core income), 13.2% of income was derived from non-farming activities (seasonal labor, business, land renting, migrant work, etc.) and 2.6% from other agricultural ventures (such as fruit and forest products). Thus, some households have also employed a diversified strategy to supplement their tea-based income.

Hani households allocated 89% of their income to expenditure. In pursuit of a modern lifestyle, 68.0% of households bought real estate (at prices ranging from RMB500-900 thousand) and 49.5% purchased vehicles (such as jeeps or trucks priced between RMB100-200 thousand). Consequently, 24.8% of households took out substantial loans (more than RMB 100 thousand) from banks.

When considering PADI as the indicator, it can be concluded that Hani livelihood development has achieved an impressive average PADI of RMB 27,292.12, surpassing both the average levels for Yunnan Province (RMB 14,197) and the national

standard of China (RMB 18,931). This outcome indicates that Hani households have overcome poverty through their tea-focused livelihood development strategies.

### Conclusion

To better understand Hani livelihood strategy development in recent years, the researcher has formulated a framework of Livelihood Dynamics (LD) as illustrated below in Figure 23.

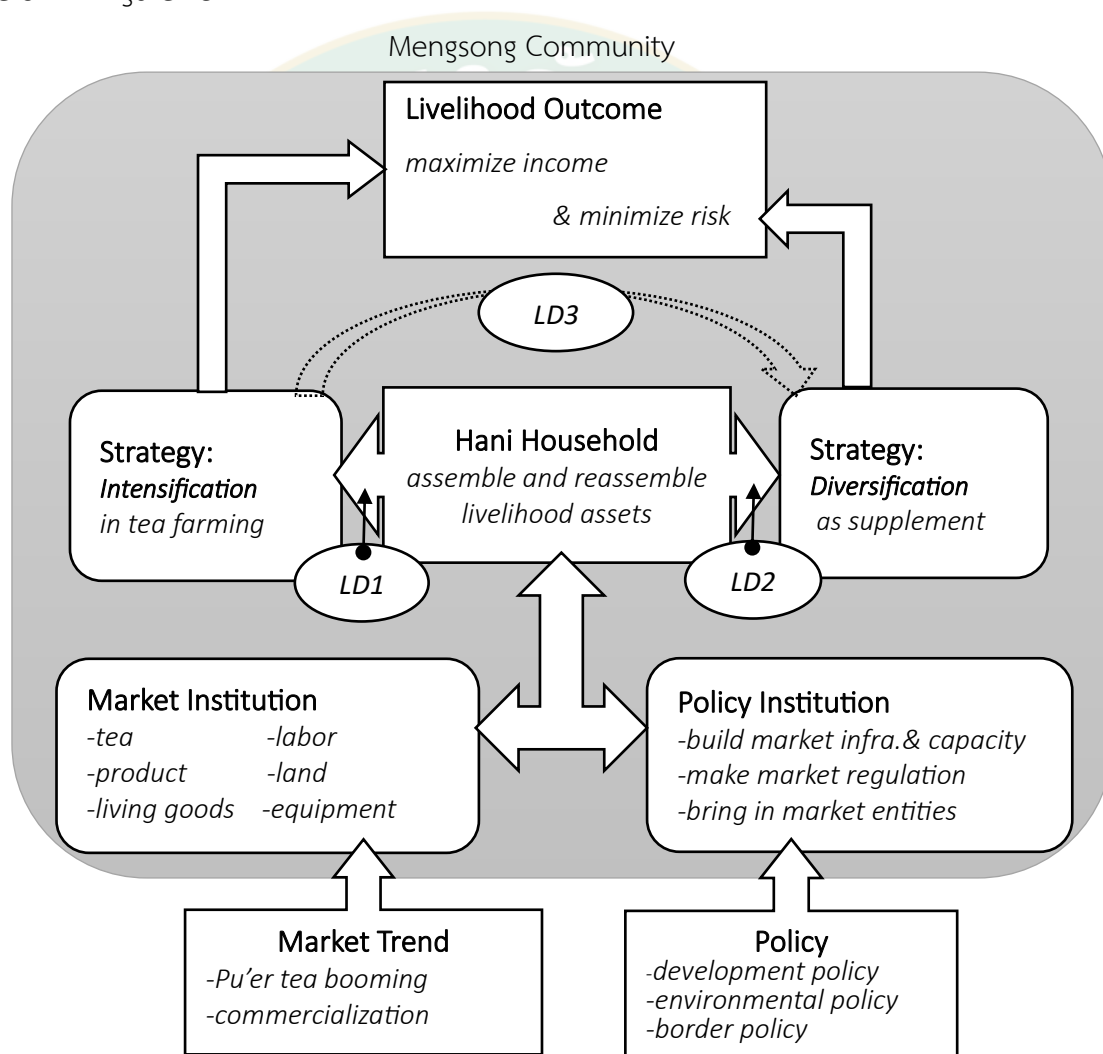


Figure 25 The Framework of Livelihood Dynamics

Note: LD1,2,3 inside the circle represents the codes of Livelihood Dynamic 1, 2, and 3.

The market trend of booming Pu'er tea, coupled with rural commercialization and the socioeconomic environmental policies implemented in recent decades, are external factors driving the transformation of Hani livelihoods from a swidden-based subsistence to a market-related livelihood. These external drivers have influenced the local institutions within the Mengsong community.

A market-related livelihood refers to a situation in which income, expenditure, and input are all earned or used through market interactions. Within the Mengsong community, Hani households primarily derive their income from the sale of tea in the market. All aspects of their lives, such as food, clothing, and sanitation, are now purchased from the market rather than self-produced through swidden agriculture. Consequently, households have increasingly participated in local labor, land, and tea equipment markets to ensure a more flexible way to access resources.

Local administration and policy institutions have made significant efforts to strengthen market functionality, such as improving infrastructure, enhancing the capacity of market actors, implementing regulations, and attracting more entities to participate in Mengsong's market. All these actions have been executed through government policies. With this support, a comprehensive and energized market institution works effectively to enable Hani households to assemble and reassemble their livelihood assets for diversified livelihood strategies, both in intensification and diversification.

Three main livelihood dynamics can be observed among the Hani households in Mengsong. A relatively high profit margin from the tea market motivated these households to focus on tea production by efficiently utilizing various livelihood assets. For instance, they converted swidden land into tea plantations, invested in advanced tea processing machines, hired labor from the market, established tea-selling channels with traders, and ultimately, earned a substantial income. This income was then used as financial input to expand tea production in the subsequent cycle. Consequently, the Hani's tea livelihood reached a historical apex in terms of asset accumulation, leading to their first livelihood dynamic (LD1) being tea intensification.

In addition to tea production, Hani households in Mengsong pursued supplementary livelihood opportunities to enhance their overall benefits. Such endeavors included rearing honeybees and chickens within their tea gardens, establishing fishponds in water-abundant paddy fields, selling labor during niche periods, renting out additional land, or becoming tea agents. While some of these ventures have been successful in generating income, others were still in their initial stages. The booming tea market in Mengsong attracted an increasing number of customers, which broadened the Hani's perspective on livelihood diversification and inspired them to explore more options. As a result, they prioritized their tea livelihood and selected options that did not conflict with tea asset utilization. This led to their second livelihood dynamic (LD2), which was income source diversification as a supplement to tea.

Livelihood dynamics are rational responses from the Hani community to available market opportunities, regardless of whether they adopt intensification or diversification strategies. The favorable tea market in recent years has led Hani households to concentrate all their productive assets on tea farming. Furthermore, they considered other marketable options as supplements to their income. Also, since tea cultivation became more profitable than paddy rice production after 2007, the Hani community allocated all their labor force to tea cultivation and gradually ceased rice farming because it conflicted with tea harvesting.

Livelihood dynamics also represent the Hani's strategic actions driven by cost-benefit calculations. They assemble and reassemble their productive assets to adapt to market fluctuations. For example, when the price of summer tea in 2021 dropped to RMB 15 per kilogram and labor costs surged to a similar level, some Hani families decided to harvest tea exclusively using their labor force instead of employing external labor. This decision was based on the diminishing cost-benefit of outsourcing labor for tea harvesting. Consequently, the third livelihood dynamic (LD3) began to emerge in Mengsong, characterized by a passive shift towards withdrawing tea inputs and reallocating them to diversified alternatives in response to changing tea and labor price ratios.

Similar situations have been observed by Li (2021) in a Yao ethnic village of Hebian (located in Mengla county, Xishuangbanna). Yao households primarily relied on tourism for income, facilitated by Li's project. However, when tourism declined due to the COVID-19 pandemic in 2020, these families reallocated their labor input to farming as a measure to compensate for lost tourism revenue (Li Xiaoyun et al., 2022). Shaoze et al. (2021) also found that falling rubber prices led households to alter their strategies by reducing labor supply for rubber farming, thereby minimizing income losses. Rubber farmers maintained their tree plantations but suspended latex extraction to minimize further sunk costs.

Livelihood dynamics encompass two change directions: upward and downward. Upward dynamic involve households actively responding to more profitable market opportunities by assembling all related assets. For instance, when a new cash crop is introduced to a village with a higher comparative profit margin, villagers will adopt it and stimulate upward dynamic. On the other hand, downward dynamic are passive as households may face price declines and must minimize losses. As cash crop prices typically fluctuate, downward dynamic is essential to counterbalance households' risks. In the absence of options for implementing downward dynamic, villagers would lose everything in the face of a severe market decline.

Should price fluctuations for a product be temporary, households usually reallocate labor first, as this is the most straightforward action. However, if a product's price experiences a dramatic and prolonged decline, households may decide to abandon the activity and switch to alternative crop cultivation. In Xishuangbanna, for example, some rubber tree plantations were cut down due to the continuously depressed rubber market. Therefore, downward dynamic typically commences with labor withdrawal and subsequently transition to land use changes. Supporting households in terms of opportunities for labor re-employment and land reuse is critical to facilitate a smooth downward dynamic.



Clearly, LD1 in Mengsong exhibits an upward trend. Both LD2 and LD3 involve diversification; however, LD2 represents a positive strategy for increasing income, while LD3 constitutes a passive choice aimed at minimizing losses under low tea prices and high labor costs. As a result, LD2 trends upward, and LD3 is downward in Mengsong.

Subsistence grain farming serves as the fundamental choice for farmers; consequently, it always represents a downward dynamic when farmers face declining profits in cash cropping. For example, Manmai Yao villagers rented their paddy fields to an agricultural company as LD2. However, when the company failed to pay rent in recent years, the villagers sought to reclaim their land for maize planting, exemplifying a downward LD3.

The upward LD1 and LD2 effectively improved household incomes in Mengsong to the national average level, completely lifting the community out of poverty. Nevertheless, as the Hani people confront livelihood crises in the current market, a downward LD3 is emerging.

### Discussion

The case study of Hani livelihood demonstrates the process of an ethnic group participating in a modernization process through cash crops. Livelihood improvement for ethnic minorities differs from that of the Han majority. Most rural Han households send their laborers to work as migrant workers in cities to earn income for family sustenance. Cultural factors, such as the inability to speak Mandarin, low educational backgrounds, and discomfort with regimented lifestyles, create barriers for ethnic minorities to work in cities alongside Han people. Consequently, cash crops have become a popular choice for these groups to keep pace with agricultural industrialization and foster their livelihood development, as various cases have confirmed (Wen, 2014; Zhou, J. & Yu, Y. 2013).

Hani households in Mengsong were fortunate to have joined the Pu'er tea booming after 2007. Their livelihoods improved dramatically thanks to tea production; they became deeply immersed in a market economy, with their livelihood strategies grounded in market principles. This market system facilitated household product sales,

living goods acquisitions, and access to productive assets, ultimately resulting in improved livelihood outcomes. The market institution thus holds considerable significance in current ethnic livelihood research. In his livelihood study of Northwest China, Zhang Zhimin (2021) also concluded the importance of market institution for minorities' livelihood during a new era of China modernization.

Market institutions play a critical role in rural livelihoods, not only as a result of ongoing efforts but also as an achievement of government policies. In Mengsong, government initiatives have enhanced local community infrastructure and provided comprehensive social services in areas such as health, education, and environmental protection. Government policies have also subsidized local insurance, valuable equipment purchases, and border protection responsibilities, among other areas. Such policies greatly assist households in participating in the market; without this support, rural ethnic communities might struggle to confront market challenges with confidence. As Li Xiaoyun et al. (2022) highlighted that the adaptation process of local livelihood to modern market economy is not an isolated process, but a government policy supporting process under local specific political and economic conditions.

Quantitative livelihood studies often face methodological issues in well-functioning market communities. Such studies frequently aim to demonstrate the significant impact of household asset holdings (i.e., independent variables) on household livelihood strategy decisions. The general conclusion is that households with larger land holdings favor farming strategies, while those with fewer lands but greater human capital may opt for non-farming or off-farming strategies. This conclusion appears logical and can be supported by correlation analysis based on large-scale data sets. However, when analyzing local livelihoods through a market lens, such as the case of Mengsong, we find that Hani households' assets are dynamic and influenced by market forces. They can access assets through market channels, with household assets functioning not only as endowments but also as entitlements facilitated by local market institutions, as demonstrated by Leach et al. (1999). Even if Hani households maintain a similar land area through HRS, they may adopt different livelihood strategies in response to market fluctuations. Thus, Hani livelihood is primarily market-driven, rather than strictly determined by asset holdings.

Households represent a fundamental unit in the livelihood strategy framework as they generate income and allocate expenses by mobilizing all members. Although decisions regarding livelihood strategies are made at the household level, they are inherently influenced by the community's institutional environment. Households, therefore, choose and tailor strategies based on their ability to optimize access to assets and achieve desired livelihood outcomes. These outcomes are influenced by the local institutional environment, which considers various factors such as economic, socio-cultural, and power dynamics. Therefore, as recommended by Scoones (2009) an integrated livelihood study should incorporate community institutions (meso level) and position them at the core of the analysis. Studying community institutions allows for a deeper understanding of the local livelihood dynamics, revealing potential directions for livelihood development rather than simplifying it as "intensification" or "diversification." This comprehensive approach is critical for generating effective policy recommendations.

The livelihoods of upland minorities are neither fixed nor isolated, but rather, continuously adapt to the ever-changing circumstances, especially in response to the modernization of China (Li, 2016). The case of the Hani ethnic group illustrates that even remote communities can experience significant changes in their livelihood strategies due to market forces. The Hani people, for example, can no longer rely solely on traditional subsistence practices. Market participation exposes them to a broader network of connections, transforming their way of life. However, the romanticized notions of tradition are anchored in history, not present reality.

The transition to market-based livelihoods may have negative implications for local culture, as seen in the Hani community. Despite the adverse impacts, the Hani people adapt with optimism. To illustrate, when Yang Jianyong attempted to instruct his son using Hani language "*to find a garlic in the vegetable garden*", his son failed to comprehend due to the lack of cultural transmission. Yang was shocked by this yet acknowledged the importance of preserving Hani culture during school vacations. The challenge of balancing market modernization and cultural revitalization calls for more systematic thinking in the development of ethnic livelihood strategies, encompassing natural, economic, cultural, social, and political dimensions.

## Recommendation

### 1) To Mengsong community and Hani households

On February 5, 2021, General Secretary Xi Jinping declared that China had achieved a comprehensive victory in its battle against poverty, lifting 98.99 million people, 832 impoverished counties, and 128,000 impoverished villages out of poverty. Moving forward, China aims to consolidate these achievements and promote rural revitalization across all communities.

China's rural revitalization strategy encompasses five domains: industry, organization, talent, culture, and ecology. Rural industry revitalization is crucial for stabilizing rural economies and ensuring sustainable development. In the Mengsong community, the Hani people's livelihood predominantly relies on the tea industry, making its cultivation essential to maintain.

Currently, several tea companies and traders have established operations in Mengsong to collect and process tea. However, Hani villagers remain at the lower end of the supply chain, primarily providing raw materials. Therefore, most of the profit accrues to the companies and traders, while the villagers bear the market risks. The research findings indicate that Hani people tend to invest their income in modern amenities, such as housing and vehicles, rather than in tea cultivation. The community should encourage the Hani villagers to reinvest in the tea industry by promoting Mengsong tea branding and supporting local talent in accessing profitable market segments. As individual households may lack the resources to establish tea trading entities or open tea companies, community administration can facilitate collaborations and assist them in achieving these objectives.

For further, Livelihood encompasses not only economic aspects but also social, cultural, and ecological dimensions of life. The traditional livelihood of the Hani people was a systematic way of life that integrated them with their natural and social environments to obtain subsistence, establish social relationships, and formulate customs with all community members. This traditional way of life facilitated the emergence of a remarkable biodiversity and fostered a distinct cultural identity. Today,

the Hani's new livelihood relies heavily on market economy and government policy. They have experienced improved living conditions due to a thriving tea industry over the last two decades. Consequently, tea cultivation became the primary focus of their livelihood strategy.

Market forces determine tea prices, influencing the Hani people to cater to customer demand. Consequently, Hani production is driven solely by market needs, leading to a transformation in social relationships to adapt to market forces. Concurrently, the rural government has re-entered Hani communities through projects and policies aimed at achieving a balanced development between economic growth and environmental protection. An increasing number of strict land policies have been implemented in Mengsong, resulting in local government control over land utilization. The local government also plays a vital role in protecting natural reserves and national forests in the area. While these government efforts have effectively preserved the local environment, they have simultaneously alienated the Hani people.

Government and market forces have significantly shaped the Hani's new livelihood, powerfully introducing modernization perspectives that undermine local culture and indigenous knowledge. Losing their indigenous culture and knowledge leaves the Hani people vulnerable to future development challenges. Therefore, it is imperative for the Mengsong community and the Hani people to prioritize cultural revitalization as a critical component of rural revitalization in the future. Cultural revitalization is not a mere reproduction of the past but involves a creative rethinking of both tradition and modernization. Reconstructing Hani culture within the context of a new livelihood may help extricate people from the consumption-oriented vortex and reestablish their intrinsic connection with nature.

## **2) To the governments of Xishuangbanna prefecture and Yunnan province**

According to the statistics of China Tea Market Association, the total tea areas of Yunnan had occupied the 1st of whole China since 2019. Therefore, Tea is the pillar industry of Yunnan province. Tea industry has the importance of more than ten million people's livelihood in Yunnan. Among all kinds of tea, almost the half value is from Pu'er tea. Pu'er tea areas are mostly distributed in the upland communities of south Yunnan, such as Xishuangbanna prefecture.

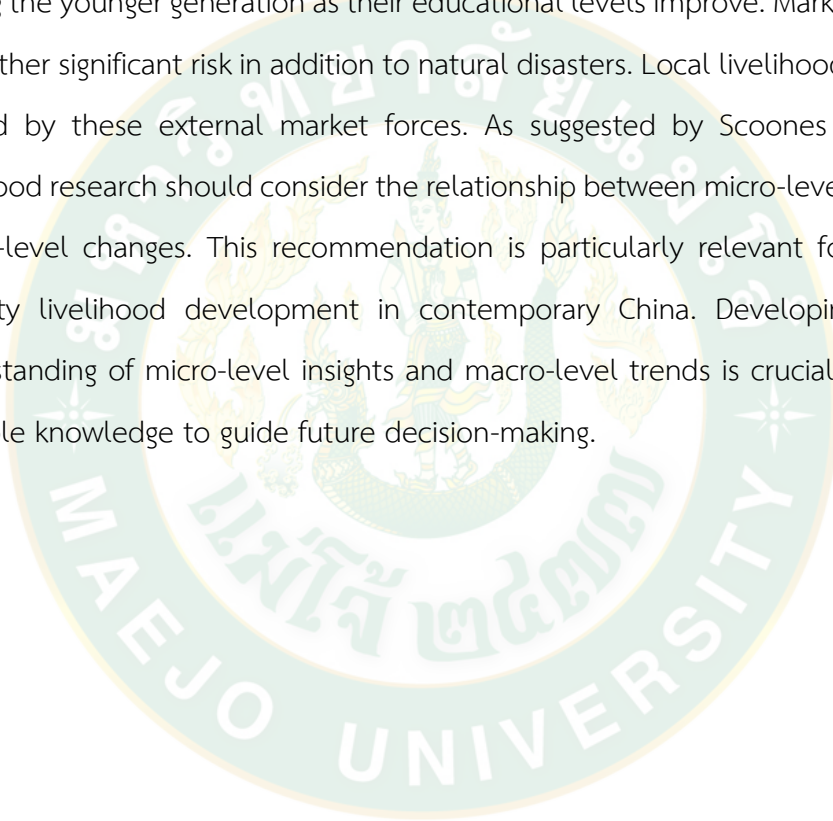
The basic reason of Pu'er tea booming is benefit from the good quality of ancient tea. Actually ancient tea is a wisdom of indigenous knowledge. Upland minorities cultivated ancient tea garden by mixing with their forests as a kind of agro-forestry model. They never utilize any chemical fertilizer and pesticide, just kept tea garden in a natural balance with its forest environment. To ensure those upland minorities' livelihood, the government of Yunnan province, especially Xishuangbanna prefecture, should protect the ancient tea areas very well by strictly forbidden any destroy activities (as existed regulation defined) in one hand. In the other hand, government policy also should encourage the best practices in ancient tea gardens by applying the update organic methods, that is true lack right now. As the ancient tea gardens are all very old, governments should grant some action researches to renew those gardens.

Take the SLA point view, government policies to support local livelihood development should take the effort in local people's capability building, especially in their accesses to livelihood assets and product markets. Under China context, the government had very strong functions to support minorities in their asset accesses as government implemented lots of supporting projects in anti-poverty in the past and rural revitalization recently. The most challenge of upland minorities faced right now is the market access, therefore, the government can build the market platform, collect and announce the market information predictably by platform, and cultivate local capability in processing standard, building brand, setting up value chain, and so on. All these works can support upland minorities active participation in market.

### 3) Recommendations for further studies

This Hani livelihood research used a limited sample consisting of several Hani villages and collected data within a restricted timeframe. Consequently, future investigations exploring minority livelihood should incorporate a more diverse range of cases across different locations and periods, allowing for more robust conclusions.

The general livelihood development process for upland minorities involves integration into market economies through cash cropping or migration, particularly among the younger generation as their educational levels improve. Market risk emerges as another significant risk in addition to natural disasters. Local livelihood dynamics are shaped by these external market forces. As suggested by Scoones (2009), future livelihood research should consider the relationship between micro-level activities and macro-level changes. This recommendation is particularly relevant for research on minority livelihood development in contemporary China. Developing a nuanced understanding of micro-level insights and macro-level trends is crucial for generating valuable knowledge to guide future decision-making.



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APPENDIX



### Semi-structure Interview Form for Household Survey

Village:            Household:            Recorder:            Date            No.:

#### Part 1 Household General Information

Member	Age	Education level	Health level
grandfather			
grandmother			
farther			
mother			
husband			
wife			
child			
child			
other			
other			

#### Part 2 Household Livelihood Asset

##### 2.1 Natural Asset

- 1) Household total upland area is \_\_\_\_\_, planted for  
old tea the area is \_\_\_\_\_ in the year of \_\_\_\_\_  
young tea the area is \_\_\_\_\_ in the year of \_\_\_\_\_  
other crop the area is \_\_\_\_\_, which crop \_\_\_\_\_
- 2) Household ancient tea area is \_\_\_\_\_  
locate in national/community/household land(forest)
- 3) Household paddy filed area is \_\_\_\_\_, use for \_\_\_\_\_
- 4) Did you sale/rent land? if Yes, in year of \_\_\_\_\_ area \_\_\_\_\_ price \_\_\_\_\_  
with whom: outsider/community member/ friend/relative,
- 5) Did you receive/give land as gift ? if yes, by whom \_\_\_\_\_ area \_\_\_\_\_ for \_\_\_\_\_

## 2.2 Human Asset

- 1) How many labor do you rent in 2021 \_\_\_\_\_ to do \_\_\_\_\_
- 2) Do you join labor inter-support activities, if Yes, by whom \_\_\_\_\_, for what \_\_\_\_\_  
(note: each household self-labor scenario can be reference to Part 1)

## 2.3 Physical Asset

- 1) Your house is old style/new style, if new, built in year of \_\_\_\_\_ square meter \_\_\_\_\_
- 2) Which kinds of tea equipment do your household have, please list:
- 3) Other cherished property if you have please mark:  
Car, motorcycle, tricycle, internet, others: \_\_\_\_\_

## 2.4 Financial Asset

in the end of 2021, your household deposit is \_\_\_\_\_, loan is \_\_\_\_\_  
your *deposit* is in cash/bank/ borrow to friend/ to relative/other: \_\_\_\_\_  
your *loan* is from bank/ friend/ relative /other: \_\_\_\_\_

## 2.5 Social Asset

- 1) how many *tea traders* do you sale tea to?  
0/1-5/6-10/11-15/15-
- 2) how much *gift cash* did you receive in your last household party  
0/1-5000/5001-10000/10001-15000/15001-20000/20001-25000/25001-
- 3) who are the most *helpful relationship* for your household?  
friend/relative/community member/other:  
how many *members* do you have with this kind relationship \_\_\_\_\_

## **Part 3 Household Livelihood Outcome**

### 3.1 household annual income (data of 2021)

1)from tea

*ancient tea* :      spring tea\_\_\_\_summer & autumn tea

*old tea and young tea* : spring tea\_\_\_\_summer & autumn tea

2) from other

farming \_\_\_\_\_ livestock \_\_\_\_\_ other product \_\_\_\_\_  
 migrant work \_\_\_\_\_ business \_\_\_\_\_ staffing \_\_\_\_\_  
 land rent \_\_\_\_\_ subsidy \_\_\_\_\_ support from others \_\_\_\_\_  
 others: \_\_\_\_\_

### 3.2 Household annual expend (data of 2021)

1) living cost

education	health	nutrition	daily hygiene	cloth	gift cash
tap water & Electricity	transportatio n & gasoline	phone & internet	tourist & leisure	wine & cigarette	Other:

2) productive cost

labor \_\_\_\_ fuel(gas) \_\_\_\_ fertilizer \_\_\_\_ pesticide \_\_\_\_ others \_\_\_\_\_

### 3.3 Household big investment in near 10 years (2002-2021)

name	Year	cost	name	Year	cost	name	Year	cost
new house/ decoration			tea-sunshine house			tea machine		
furniture & electric equi.			car/motor/ tri-motor			household party		
Others:								

### 3.4 Environment

in your opinion, the ecological environment of your *tea garden* compare with it in the past is: much better/better/same/worse/much worse

WHY \_\_\_\_\_

## 3.5 Risk

in your opinion, what are the main risk of your livelihood face today ?

1) natural disaster: most serious/serious/normal/low/very low/none

2) market fluctuation: most serious/serious/normal/low/very low/none

3) members' sick: most serious/serious/normal/low/very low/none

4) others \_\_\_\_\_: most serious/serious/normal/low/very low/none

How you deal with the most serious cases: \_\_\_\_\_

3.6 Did your livelihood had been impacted by COVID-19 ? Yes/No

If yes, on which level (from the lowest 1 to the biggest 5) by your thought \_\_\_\_\_

In which part \_\_\_\_\_

**Part 4 Problem Mengsong and Suggestions**

4.1 What are your main livelihood difficulties now \_\_\_\_\_

4.2 What are your future livelihood development plan \_\_\_\_\_

4.3 What are the support you need from government policy for your future plan:

\_\_\_\_\_

\_\_\_\_\_

## CURRICULUM VITAE

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