

## ARTICLE

# Unravelling uneven livelihood transformations in China's multi-ethnic Southeast Asian borderland: Perspectives from spatial interactions

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## Abstract

For the past two decades, China's multi-ethnic Southeast Asian borderland has been experiencing transitions, characterised by the confluence of capital, people, items and technologies. This borderland has effectively been repositioned, with opportunities for investment and employment, regional integration and transnational linkages featuring multiple spatial interactions. Based on eight months of fieldwork in three ethnic villages in China's Southeast Asian borderland, this article examines how geo-economic repositioning featuring multiple spatial interactions affects agrarian livelihoods. This study argues that local households have used spatial interactions in differentiated ways to transform the use of land and to improve livelihoods, while uneven development among ethnic minorities remains a concern. Land use has been changed to include the dominant commercialisation and marketisation of high-value-added crops. Livelihoods have been diversified, and many local villagers have become entrepreneurs, landowners and agricultural investors. Different ethnic groups have adopted different strategies in response to market-oriented products and processes. The Han Chinese from both inside and outside the area now dominate the commercialised processes of cash crop expansion and diversification. This article contributes to the existing literature on changing agrarian livelihoods in multi-ethnic borderlands in the context of opening-up and economic globalisation, especially in East and Southeast Asia.

## KEYWORDS

agrarian change, borderland, China, ethnicity, Southeast Asia, spatial interactions

## 1 | INTRODUCTION

This article focuses on livelihood changes in China's Southeast Asian borderland (mainly Yunnan and Guangxi Provinces, which border Myanmar, Laos and Vietnam). In this borderland, the Chinese government has launched a series of policies

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over the past two decades; the objective has been to improve infrastructure, encourage border integration and promote network connections and regional development (Chen, 2018; Hua et al., 2023; Song et al., 2020; Su, 2016). Examples include the Belt and Road Initiative (2013) and the Pilot Free Trade Zone (in Yunnan and Guangxi, 2019). In the context of economic growth and increasing the region's opening-up, this borderland has been geo-economically repositioned by the Chinese government as a strategic bridgehead, becoming a spotlight and a path towards the development and cooperation connected to Southeast Asia and South Asia (Su, 2016). Generally, this borderland has become a networked frontier, characterised by the confluence of capital, people, items and technologies.

As part of mainland Southeast Asia from the perspective of geomorphology (Kono & Rambo, 2004; Xu et al., 2006), the borderland between China and Southeast Asia has witnessed unprecedentedly rapid land use and agricultural transformations. Examples include land conversion, from shifting cultivation or traditional agriculture to rubber plantations in the upland (e.g., land concession, China's Sloping Land Conversion Program, and China's Opium Substitution Program) (Fox & Castella, 2013; Liu et al., 2006; Woods, 2019; Ziegler et al., 2009), and agricultural intensification for the fruit boom in the lowland (e.g., commercial banana, watermelon, musk melon) (Friis & Nielsen, 2016; Hua et al., 2022; Kubo et al., 2021; Zhang et al., 2014). All of these land conversion programs have led to dramatic socio-economic and environmental consequences (Fox et al., 2014). However, most of the above studies have focused on the Southeast Asia side, while very little information is available on the contemporary agrarian changes inside China (Borras et al., 2018). Therefore, many questions about agrarian changes still need to be addressed and further discussed.

In addition, the borderland between China and Southeast Asia is culturally inhabited by many ethnic groups (Hua et al., 2020; Qian & Tang, 2017; Sturgeon, 2010; Zhang et al., 2014), most of which have long been regarded as economically 'backward'. Now, these groups are experiencing rapid transformation. For example, the livelihoods of the Dai and Akha villagers in southern Yunnan have been changed. They have moved from being farmers to becoming entrepreneurs by adopting and expanding rubber cultivation (Sturgeon, 2010). However, there is still insufficient knowledge concerning the socio-economic impacts on multi-ethnic agrarian communities in this borderland.

This article builds on the notion of spatial interaction, with the aim of generalising regional integration and trans-regional or transnational linkages in China's Southeast Asian borderland. Spatial interaction refers to 'the interdependence between geographical regions ... as complementary to the more traditional emphasis on relationships (people and their social context; people and environment) within each individual region' (Gregory et al., 2009). Spatial interaction involves multiple flows between nodes, including human movements (e.g., migration) and movement of materials (e.g., international trade) (O'Kelly, 2015). Specifically, this article addresses the central question of how multiple spatial interactions affect the agrarian livelihoods of different ethnic people in this borderland. The overarching argument is that local ethnic households have already effectively capitalised on regional advantages, biophysical conditions, government policies and transnational/cross-border economic linkages to transform land use and improve their livelihoods. Land uses have changed, moving from traditional cash crops towards high-value-based and market-oriented commercial farming. Agrarian livelihoods have been changed as well, with farmers becoming entrepreneurs, landowners and agricultural investors. In this transitional context, different ethnic people show diversified strategies in the rearranging and adjusting of their land uses and livelihoods. The results in terms of livelihood outcomes have varied. Generally, interethnic differences are much more obvious, and Han Chinese are dominant in this commercialised process.

The arguments of this article are developed as follows: First, the conceptual lenses that are used to view the transitions in borderlands, which feature multiple spatial interactions, are briefly presented. Second, the livelihood changes being experienced in three ethnic villages in China's Southeast Asian borderland, which in turn have been influenced by spatial interactions, are outlined and discussed, followed by the conclusion.

## 2 | MULTIPLE SPATIAL INTERACTIONS IN CHINA'S MULTI-ETHNIC SOUTHEAST ASIAN BORDERLAND

One of the distinctive features in post-Cold War Asian borderlands is that multiple spatial interactions are becoming much more powerful (Chen, 2018; Horstmann et al., 2018; Hua & Kono, 2020; Mahanty, 2018; Su, 2014; van Schendel, 2004). Su (2014) insightfully developed the notion of the multi-scalar regionalisation of China's Yunnan Province. These studies highlight the extra-regional transnational economy between Yunnan and mainland Southeast Asia, the inter-regional economic networks between Yunnan and other mainland provinces, and intraregional city-regions, all of which construct network connections. These spatial interactions cover the increasing density of road and rail networks, and this coverage is supported by technologies of communications, massive internal migrations and the gradual opening-up of

borders to trade and tourism (Kono et al., 2018; Kubo et al., 2021; Michaud, 2018; Zhou et al., 2022). Generally, the ‘friction of terrain’ is being erased, and these spatial interactions have been creating and representing a space of ‘networked borderlands’. As van Schendel (2002) advocated, scholars need to ‘jump scale’, highlighting the importance of the mobility, flows and border-crossing of people and matters in thinking about the development of the borderland. Similarly, Newman (2006), Ptak et al. (2022) and Qian et al. (2023) also pointed out the necessity of adopting the perspective of the bordering process and moving beyond the traditional thinking of the borderlands being the separation between political, social and economic spaces.

Given the centrality of land and agriculture to agrarian livelihoods in borderlands, contemporary agrarian societies have been dramatically transformed under the above-mentioned spatial interactions. The banana boom, which is being managed by Chinese investors on both sides of the China–Laos borderland, is a typical example. The boom clearly shows how multiple spatial interactions create network connections and contribute to the changing of agrarian landscapes and livelihoods (Friis & Nielsen, 2016; Zhang et al., 2014). Regarding the infrastructural connections, Friis and Nielsen (2016) noted that ‘a general improvement of road infrastructures [has] deepened the formal integration and regionalization of the economy in the border region’. According to Zhang et al. (2014), ‘the flow of people, information and goods was facilitated by road building ... the Chinese government has greatly improved traffic conditions’. Apart from domestic banana investment (Zhang et al., 2014), Chinese investors (including small companies, agribusinessmen and joint ventures) cross the border by using social networks connected to Laotian society to invest in commercial banana crops. These crops are then exported to China, due to the quickly rising demand for fresh fruit from the Chinese market. In other crop booms that have similarly happened in borderlands, however, transnational or cross-border labour migrants are largely found (Baird & Fox, 2015; Hua et al., 2019, 2023). These migrants remain in poverty and are often ‘invisible’, unreported (uncounted) and living in precarious conditions (Green & Estes, 2022; Rigg, 2015). In short, these cases clearly point out that agrarian changes cannot be understood as only occurring within a bounded space; border dynamics should also be considered.

To explore how border dynamics affect ethnic agrarian livelihoods in emerging networked borderlands being facilitated by multiple spatial interactions, this article builds on Hua and Kono’s (2020) conceptualised framework of border interactions. That study was largely inspired by Minghi’s (1991) borderland transaction flow model based on a division of frontier zones, regional (provincial) centres, and national (federal) centres, and by existing literature and theoretical considerations on tele-coupled or meta-coupled human–natural systems (Liu, 2017). This work covers local, in-country, cross-border and transnational interactions centred on the key geographic dimensions of distance and scale. In this paper, ‘local interaction’ means the interaction processes that contribute to agrarian change on each side of a border space (e.g., upland–lowland economic linkage and interethnic interactions). In-country interaction refers to the interaction processes that arise from distant (but not adjacent) agrarian systems (e.g., central governmental opening-up policies that reposition and reshape borderlands). Cross-border interaction refers to the interaction processes on both sides of (but within) a border space (e.g., cross-border migration and marriage). Transnational interaction signifies the interaction process between a border space shared by one state with another state (e.g., the China–Laos railway linking China’s borderland to Laos’ inland area). This article empirically examines the processes of micro-level changes in land use and livelihoods in upland and lowland areas in this borderland, based on eight months of in-depth fieldwork in three ethnic villages.

### 3 | LIVELIHOOD TRANSFORMATION IN CHINA’S MULTI-ETHNIC SOUTHEAST ASIAN BORDERLAND

To understand agrarian livelihoods under the geo-economic repositioning of China’s Southeast Asian borderland, this paper selected Ruili City as the study site. Ruili City is in the southwest part of Dehong Dai–Jingpo Autonomous Prefecture, Yunnan Province, bordering Myanmar (Shan and Kachin states). Having long-established and friendly relationships with Myanmar, especially regarding trade, Ruili City is a significant location for border crossings and openness (Song et al., 2020; Su & Cai, 2020). There are many ethnic groups in this area, including Han Chinese, Dai, Jingpo, De’ang, Lisu and Achang. Its population in 2019 stood at 210,475, with 58.5% Han Chinese and 41.5% ethnic minorities. A majority of the ethnic minorities were Dai (29.2%) and Jingpo (7.1%). In Ruili City, there are two types of geomorphic terrain: uplands and lowlands. Considering accessibility and availability (Figure 1), this research chose for fieldwork two adjacent natural villages in the upland, near Kachin State (named H and J Village in this study), and one natural village in the lowland, near Shan State, Myanmar (named D Village in this study), (Hua et al., 2020, 2023). Data

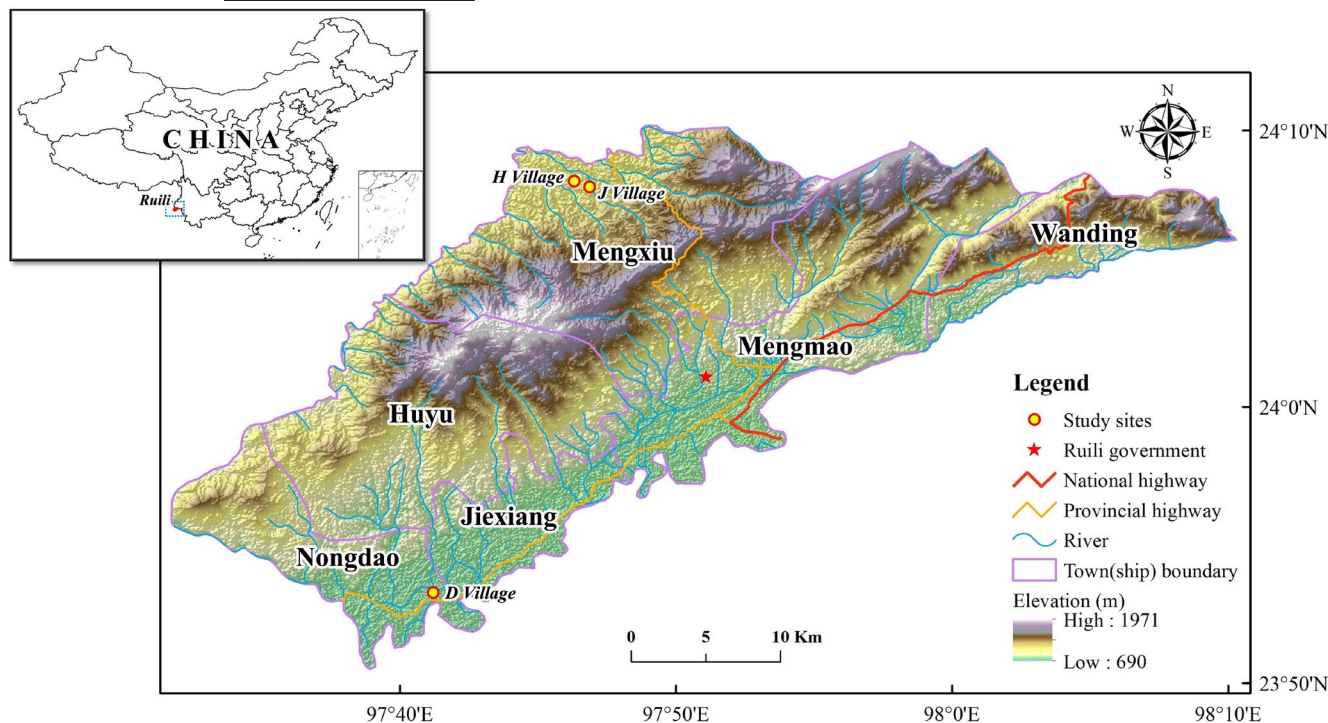


FIGURE 1 Location of study sites in Ruili City, Yunnan Province, China.

collection for the in-depth village study took place in August and September of 2016, February and March of 2017, and January, February and December of 2018.

The upland village H is a Han Chinese agricultural village; J Village is a Jingpo agricultural village. As China's Southeast Asian borderland expands with cash crops, these two villages are representative of the development. In the lowland, D Village is a typical agricultural village, dominated by Dai. It represents the agricultural investments made by outside investors and the expansion of cash crops along the China–Myanmar border.<sup>1</sup>

### 3.1 | Livelihood transformations in upland Han and Jingpo villages

The traditional crops in Han and Jingpo villages include sugarcane,<sup>2</sup> rice and maize. In recent decades, however, Han villagers in H Village have been trying to plant high-priced cash crops, specifically because of the relatively high profit and government support. These crops include dendrobium and lemon, and resulted in the conversion from paddy fields to protected agriculture and tree-based cash crops. These fields were traditionally used for paddy rice and sugarcane. Han villagers also changed dry land use, moving from sugarcane to mostly timber forests. This process, once adopted by the dominant Han villages, expanded to the neighbouring Jingpo villages (including J Village). The expansion was by way of interethnic land rental for a large proportion of farmland, which in turn was done by Han villagers for the expansion of cash crops and timber forests. Interethnic land rental (local interaction) between Han and Jingpo villagers is mainly triggered by the differences in resource endowment resulting from ethnic living patterns, as well as by difference in development awareness and capabilities. Generally, Han villagers are dominating the rapid cash crop expansion and diversification of the upland.

Although Jingpo villagers have also intensified their cropping system, the degree of agricultural intensification and diversification is much lower (compared to Han villagers). Renting out farmland to neighbouring Han villages is a common strategy in J Village.

Notably, transnational labour migration from Myanmar (e.g., the Magway and Ayeyarwady regions) contributes to this expansion in the upland villages, particularly in the context of out-migration and the ageing of local Han and Jingpo villagers (transnational interaction). The increase of available labour from Myanmar effectively acts as a substitute and supplement for the outgoing local labour force that is migrating to urban and non-farm sectors. The Myanmar labour helps Han villagers cultivate market-oriented crops and influences their land use and land–labour relations. Generally,

both Han and Jingpo villagers can obtain profits from agricultural activities that combine cash crop plantation by hiring Burmese labourers as a substitute for local labourers. This helps to avert labour shortages.

With regard to livelihood outcomes in the upland villages, Han villagers in H Village increase their income by diversifying their livelihood strategies, combining off-farm opportunities and agricultural intensification. Also, due to transnational labour migration, most Han villagers have transformed their livelihoods by moving towards becoming entrepreneurs. Meanwhile, Jingpo villagers are experiencing an increasing income gap (compared to Han ethnic households), largely due to declines in farmland. Jingpo villagers' livelihoods depend mainly on on-farm work. However, following the Han villagers, the Jingpo villagers are changing land use patterns while simultaneously exploring new livelihood choices under the background of interethnic interactions. For example, they are learning sugarcane- and lemon-growing skills from Han villagers.

In a recent revisit to the sampled upland villages, this study found several agricultural investors from north-eastern China who had started to rent farmland from some Jingpo villagers in J Village. The rented land is being used for planting golden berry (*Physalis peruviana* L.) (in-country interaction). This implies that outside Han investors may replace the local Han villagers to be the new lessee in Jingpo-dominant villages. In short, most of the Jingpo villagers have transformed their livelihoods towards becoming landowners.

### 3.2 | Livelihood transformation in lowland Dai villages

The traditional crops in lowland Dai villages include paddy rice, sugarcane, soybean and maize. For the past decade, the changing situation in the lowland has been very similar to some other areas in East and Southeast Asia. In short, agricultural investment by outsiders is unprecedentedly expanding and changing smallholder agriculture and agrarian societies (in-country and transnational interaction) (Borras et al., 2018; Hall, 2011). Local Dai villagers were found to have only rented out their farmland to outside investors for the expansion of commercial banana and watermelon crops. However, the villagers neither cultivated the same crops themselves, nor were they hired as employees on the banana/watermelon farms. Instead, the villagers rapidly converted the traditional rice-farming system to rice-based intensified multi-cropping systems with sweet corn (double cropping) and/or oriental tobacco (single cropping). This is being achieved by Dai villagers adopting diversified land rental practices within the village for land rearrangement (local interaction) purposes, and with the support of cross-border labour migration from Myanmar (e.g., Shan State) (cross-border interaction). In addition, local livelihoods have been further differentiated, in that many young people were tending to leave land for off-farm opportunities. As discussed, with the borderland repositioning, many job opportunities have been generated in Ruili for both local citizens and Burmese labourers. In general terms, Dai villagers have transformed their livelihoods, from being involved to initiatively engaging in market-oriented products and processes as landowners and entrepreneurs.

Furthermore, in China's Southeast Asian borderland, some local Dai villagers were found to be acting as agricultural investors, crossing the border and participating in investment in watermelon and sugarcane on the Myanmar side (transnational/cross-border interaction). Obviously, the borderland is becoming a hotspot for fresh tropical fruit trade, due to the expanding demand for tropical fruits in Chinese markets (Kubo et al., 2021). In this context, the relatively low land and labour prices and suitable physical and social-economic conditions in the investment area has attracted outside investors from China (including Dai villagers). These investors are renting farmland – specifically for fruit investment – with diversified patterns, responding to the increasing demand for different fruits.

## 4 | DISCUSSION

### 4.1 | Conditions for livelihood transformation in China's multi-ethnic Southeast Asian borderland

Tracking and interpreting the patterns and trajectories of social and economic change is a key challenge for geographers (Rigg & Salamanca, 2015). The sampled cases in upland and lowland villages show the embeddedness of agrarian livelihoods in China's multi-ethnic Southeast Asian borderland, which in turn has been constructed by multiple spatial interactions. Generally, the shaping and transformation of land use and livelihoods in this borderland can be understood as having been influenced by the presentation and combination of the aforementioned powers: local interaction, in-country interaction, cross-border interaction and transnational interaction.

In this paper, 'local interactions' include intra-village land rental in three villages, and the interethnic land rental found between Han- and Jingpo-dominated villages. 'Local interaction' also implies the existing, uneven distribution of land resources, both within these villages and between different ethnic villages. This local interaction has resulted in the accumulation of natural resources by Han Chinese, and the adoption of land reallocation strategies by Jingpo and Dai.

Regarding in-country interactions, the Chinese government helped this borderland to become the opening-up frontier. This was achieved by launching a series of policies and plans in the region, as previously discussed (Su, 2014, 2016). Over the same period, the Chinese government also implemented many other rural developments, such as 'Building a New Socialist Countryside' (launched in 2005), abolishing agricultural taxation (since 2006), and the rural revitalisation strategy, which was launched in 2017 (Yan et al., 2021). Land use policies have also supported and encouraged the development of the rural land rental market (Ye, 2015). In addition, the Chinese government has greatly invested in and improved the agricultural infrastructure, such as with the Land Consolidation Project. One example of this investment is the well-built highways, which have significantly attracted and promoted the flows of capital, people (e.g., outside investors) and technology, such as increased agricultural investment and the growing fruit trade. All of this has created a close connection between the domestic market and farming activities in this borderland. Generally, top-down institutional support from the government is an important trigger, and in this case, one which has resulted in significant changes in land use and livelihoods in the borderland. Government support has contributed to the region's economic growth, improved accessibility to domestic markets and improved farming conditions. For villagers in the borderland, this has been achieved by using their comparative advantages in land, labour and capital.

In terms of transnational and cross-border interactions, because of the prosperity on the China side of this borderland, people and places on the Myanmar side became involved in these processes (Borras et al., 2020, 2021). Their involvement has contributed to the further development of agricultural production in the borderland. Transnational/cross-border labour migration from Myanmar to China has helped the local villagers to overcome the labour shortages caused mainly by the rapid development of the off-farm economy. In this process, local ethnic villagers, outside investors and Burmese labourers are closely linked, which is also one of the significant triggers for the agricultural and rural development on the China side.

In addition, cross-border or international cooperation between the two sides and two countries of the borderland has played an important role in the process of land use change and livelihood transformation. For example, Chinese agricultural investors can formally or informally invest in farmland on the Myanmar side; the cross-border fruit trade has also been greatly promoted through Mandalay, Myanmar to China (Kubo et al., 2021). In addition to the convenient transportation, many privileges are provided, such as a tax reduction. These benefits have resulted in an unprecedented flow of people, capital and technology from China to Myanmar. At the same time, agricultural investment provides job opportunities for local ethnic people.

## 4.2 | Implications

First, this article challenges the place-based geographic thoughts on agrarian changes in borderlands. This is achieved by using a spatial interactions perspective in the context of opening-up, rather than by the method used in previous studies that examined and discussed the spatial and temporal processes and patterns within the national border. Although many studies of the borderlands have been conducted, those studies have always focused on agrarian livelihoods and land use on just one side of the borderlands. They neglect the influences from the other side or from different places. Furthermore, micro-level studies are still lacking, due to their use of the bottom-up approach. To fill these two research gaps, this study adopted a workable conceptual framework inspired by tele-coupled human–natural systems. Empirically, this study provides a village-level study in China's Southeast Asian borderland based on long-term observations. Some specific issues related to both sides, such as interethnic land rental, transnational/cross-border migration and transnational agricultural investment, are used in this article for consideration of livelihood transformations. Especially worth mentioning is that the multiple spatial interactions in this borderland experienced severe disruptions during the COVID-19 pandemic and after the 2021 military coup in Myanmar (Swift et al., 2024). In such contexts, featuring lockdowns and/or border restrictions, several questions arise. For example, how are local livelihoods affected as off-farm opportunities and transnational labour migration are limited? How is cross-border trade/investment (e.g., the fruit trade) affected? How can agricultural investors change their strategies to adapt to the uncertainty? All of these questions need to be further considered.

Second, this article helps to understand the linkages between ethnicity and the related land use changes in contemporary borderlands. In land system science, conceptualised proximate-underlying causes have been commonly adopted (Geist & Lambin, 2002); cultural factors have also been noted. In practice, however, many studies have paid too much attention to socio-economic and ecological factors. In borderlands, this study argues that cultural factors should be carefully examined when discussing land use and livelihood issues under multiple spatial interactions. This article highlights the ethnicity and interethnic interactions (local interactions) in the upland, which were discovered when interviewing Jingpo and Han villagers. This study also links ethnicity when considering land use history and contemporary changes. Generally, cultural dimensions are embedded in these spatial interactions.

Third, this article also contributes to the existing body of literature on the changing of agrarian livelihoods and society as a whole under conditions of agricultural investment in East and Southeast Asian countries. These findings are relevant to the literature on livelihood studies and development geography, as well as being relevant for implementing policies for poverty alleviation and sustainable livelihoods. As Natarajan et al. (2022) argued, 'multi-level, multi-scalar and structural analysis is now a pre-requisite for understanding agrarian livelihoods'. This is especially true when one considers the shifts wrought by neoliberal globalisation. Although this article aims at understanding the changes in land use and livelihoods in China's Southeast Asian borderland, these findings also provide evidence of the flows of capital, people, and matters in borderlands. As such, the findings are useful for government departments reconsidering and fostering contemporary border policies and governance.

## 5 | CONCLUSION

This article addresses livelihood transformations in China's multi-ethnic Southeast Asian borderland. This transformation is being supported by multiple spatial interactions. This study argues that local households in China's Southeast Asian borderland have already effectively used government policies, physical conditions and transnational economic linkages to transform land uses and improve their livelihoods. Land use in the borderland has been changed and now includes many high-value-added crops. Livelihoods have been diversified, and most local villagers have become entrepreneurs, landowners and agricultural investors.

Specifically, as mentioned above, land use in this borderland has been transformed towards cultivating high-value-added cash crops, including dendrobium and lemon in the upland, and tropical fruit, sweet corn and oriental tobacco in the lowland. These crops now coexist with traditional cash crops, such as sugarcane and paddy rice. Agriculture is still an important income source for local residents. However, the forms of agriculture differ in different ethnic groups and villages. Different ethnic groups have adopted different strategies and made different responses to market-oriented products and processes. The Han Chinese from both inside and outside the area now dominate the commercialised processes of cash crop expansion and diversification. The current cash crop expansion is being dominated by Han Chinese through land reallocation by land rental. This may increase the economic inequality in the short term, but may also contribute to the increasing development awareness of ethnic minorities in the long term. The spillover effect of the processes and conveniences in Myanmar has stimulated Chinese farmers to engage in transnational agricultural investment. Undoubtedly, China's Southeast Asian borderland is no longer a remote and marginal place. The function of border(land)s, which were primarily created to differentiate places, has been unprecedentedly changed. Today, this borderland has become the networked frontier of opening-up practices, with far more opportunities for different kinds of investment and job opportunities for each or both sides. These opportunities are supported by multiple spatial interactions. The benefits of these interactions and government support tremendously attract domestic investment and inward labour migration from Myanmar to the China side of the borderland, and send cross-border and transnational investment to Southeast Asian countries.

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## DATA AVAILABILITY STATEMENT

Research data are not shared.

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## ENDNOTES

- <sup>1</sup> This article defines the ethnicity of households according to the ethnicity of the household head (Hua et al., 2020). In H Village, 98.2% of households are Han Chinese; 84.7% of households in J Village are Jingpo, and 87.5% of households in D Village are Dai.
- <sup>2</sup> Sugarcane here is a conventional crop introduced by the local government, which is distinguished from other cash crops (e.g., banana) that are driven by capitalism.

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