THE POLITICAL ECONOMY OF INDUSTRIAL TREE PLANTATIONS IN THE ERA OF GLOBAL LAND RUSH: THE CASE OF GUANGXI, CHINA

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The Political Economy of Industrial Tree Plantations in the Era of Global Land Rush: the case of Guangxi, China

De politieke economie van industriële boom-plantages in het tijdperk van een wereldwijde run op grond: de casus Guangxi, China

Thesis

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To my dear parents and Fengfeng

此书献给我亲爱的父母和风风

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Acronyms

ITP - Industrial Tree Plantation
PA - Primitive Accumulation
ABD - Accumulation by Dispossession
AWD - Accumulation without Dispossession
HRS - Household Responsibility System
NGO - Non-Governmental Organization
TNC - Transnational Company

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Abstract

The industrial tree plantation (ITP) sector is expanding rapidly and massively in Southern China, and recently especially in Guangxi. The rise of the ITP sector, involving both foreign and domestic actors, has led to extensive changes in land-use and land control, as well as in labour conditions and livelihoods in the villagers in question. These changes and the resulting encroachment by the ITP sector, has led to diverse political reactions by the affected villagers. Exploring the dynamics of the sector's expansion in Southern China offers, on the one hand, a more refined analysis of the role of China in global land politics and calls for a rethink of the nature of land politics. On the other hand, it helps to deepen the understanding of a complex maze of recent and dramatic agrarian transformations in Guangxi involving the land-labour nexus and villagers' livelihood changes. In this context, the central research question is: *Why and how did the industrial tree plantation sector expand in Southern China, and what implications does it have for the livelihoods of rural villagers?*

Using a critical agrarian political economy and political ecology analytical framework, this study explores the dynamics of the ITP sector's expansion in Southern China - contextually, interactively, and dynamically. This study demonstrates that the rise of the ITP sector emerged under particular economic, political, and social conditions worldwide and in China, while the contours and trajectories of the ITP sector (re)shape and are (re)shaped by the land, labour, and livelihood conditions in Southern China, in a dynamic and relational way.

This study shows that foreign investors acquire land inside China. This implies that the role of China in global land politics is not limited to that of the country-of-origin of numerous foreign land investors and as a major

site of agro-product consumption, but that the country is also a destination of foreign land investments in a global crop boom. At the same time, this study reveals a reverse labour and capital inflow from urban areas to rural areas with the rise of the ITP sector. This trend is in contrast to what most studies on agrarian transformation note, namely that rural areas are dispossessed for the capital accumulation of urban industrial sectors, with a massive labour flow from rural to urban areas. This study also sees that villagers do not necessarily get excluded and thus resist the sector because of their expulsion and/or because of environmental concerns, as in the case in many other places around the world where a crop boom has taken place. Villagers exhibit diverse adaptive livelihood responses to a crop boom, and are affected differently by it, which then results in distinctly different political reactions. In order to more fully capture these dynamics, this study goes beyond the dichotomy of "exclusion versus inclusion", and offers a more nuanced typology, which includes passive inclusion, active inclusion, passive exclusion, and active exclusion. Finally, this study critically examines the complicated role played by the state during the processes just described.

DE POLITIEKE ECONOMIE VAN INDUSTRIËLE BOOMPLANTAGES IN HET TIJDPERK VAN EEN WERELDWIJDE RUN OP GROND: DE CASUS GUANGXI, CHINA

Samenvatting

De sector industriële boomplantages (ITP) breidt zich snel en massaal uit in Zuid-China, en recentelijk vooral in Guangxi. De opkomst van de ITP-sector, waarbij zowel buitenlandse als binnenlandse actoren betrokken zijn, heeft geleid tot uitgebreide veranderingen in grondgebruik en grondbeheer, en ook in de arbeidsomstandigheden en het levensonderhoud van de betrokken plattelandsbewoners. Deze veranderingen en de inmenging door de ITP-sector hebben geleid tot uiteenlopende politieke reacties van de getroffen dorpsbewoners. Onderzoek naar de dynamiek van de expansie van de sector in Zuid-China biedt enerzijds een verfijndere analyse van de rol van China in de mondiale grondpolitiek, en vraagt om een heroverweging van de aard van de grondpolitiek. Anderzijds draagt het bij aan een beter begrip van een complex doolhof van recente en dramatische agrarische transformaties in Guangxi die van invloed zijn op het verband tussen grond en arbeid en op het levensonderhoud van de plattelandsbewoners. In deze context is de centrale onderzoeksvraag: Waarom en hoe is de sector industriële boomplantages in Zuid-China uitgebreid, en welke implicaties heeft dit voor het levensonderhoud van de plattelandsbevolking?

Met behulp van een kritisch analytisch kader uit de agrarische politieke economie en politieke ecologie wordt in dit onderzoek gekeken naar de dynamiek van de expansie van de ITP-sector in Zuid-China - contextueel, interactief en dynamisch. Uit dit onderzoek blijkt dat de ITP-sector is opgekomen onder bijzondere economische, politieke en sociale omstandigheden die zich wereldwijd en in China voordoen, terwijl de contouren en

trajecten van de ITP-sector (opnieuw) vormgeven aan en (opnieuw) worden gevormd door de omstandigheden op het gebied van grond, arbeid en levensonderhoud in Zuid-China, op een dynamische en relationele manier.

Uit dit onderzoek blijkt dat buitenlandse investeerders grond verwerven in China. Dit betekent dat China in de wereldwijde grondpolitiek niet uitsluitend een rol speelt als het land van herkomst van talrijke buitenlandse grondinvesteerders en als een belangrijke afnemer van agroproducten, maar dat het land ook een bestemming is voor buitenlandse investeringen in een wereldwijde hoogconjunctuur op het gebied van gewassen. Tegelijkertijd laat deze studie zien dat de opkomst van de ITP-sector gepaard gaat met een omgekeerde instroom van arbeid en kapitaal van stedelijke gebieden naar plattelandsgebieden. Deze trend gaat in tegen wat in de meeste studies over agrarische transformatie wordt gesignaleerd. Die wijzen op een onteigening van de plattelandsgebieden ten bate van de kapitaalaccumulatie in stedelijke industriële sectoren, wat een massale uitstroom van arbeid van het platteland naar de stedelijke gebieden tot gevolg heeft.

Uit dit onderzoek blijkt ook dat plattelandsbewoners niet noodzakelijkerwijs worden uitgesloten en zich dus niet automatisch tegen de sector verzetten vanwege de onteigening en/of vanwege zorgen om het milieu, zoals het geval is op veel andere plaatsen in de wereld met een hoogconjunctuur op het gebied van gewassen. Dorpsbewoners verschillen in de manier waarop zij zich aanpassen aan de gevolgen die de hoogconjunctuur in gewassen heeft voor hun levensonderhoud. Ze worden er op een verschillende manier door beïnvloed, wat leidt tot duidelijk verschillende politieke reacties. Om deze dynamiek beter in kaart te brengen gaat dit onderzoek verder dan de dichotomie van 'uitsluiting versus inclusie'. Er wordt een meer genuanceerde typologie gepresenteerd, die passieve inclusie, actieve inclusie, passieve uitsluiting en actieve uitsluiting omvat. En ten slotte wordt in deze studie kritisch onderzocht welke gecompliceerde rol de staat speelt in de zojuist beschreven processen.

1 Chapter 1: Rethinking the politics of the industrial tree plantation sector in Southern China: problem, question, methodology and theoretical exploration

1.1 Introduction

In recent years, crop booms have occurred worldwide under the convergence of food, fuel, financial, and environmental crises (Hall 2011). As Hall (2011) points out, when a crop boom takes place, there is a rapid increase in the changes in land-use for the cultivation of that particular crop in a given area. This is not only a process of extensive land-use change, but is often followed by land acquisitions/land grabs in varying ways and at various levels. These changes in land control and land-use have significantly affected the livelihoods of local villagers and, in some cases, even resulted in the dispossession of various social groups, normally the marginalized, and have provoked widespread conflicts (Scoones et al. 2013, White et al. 2012). These crop booms have attracted a pyramid of academic studies, especially concerning land politics. In this dissertation, land politics includes issues around who controls the land under what channel and for what land-use, who gets what from the land, and the implications of these land-based changes.[1]

In current literature, most researches focus on the offshore production of boom crops on sites of abundant land supply (e.g. Southeast Asia, Africa and Latin America), involving the BRICS countries (Brazil, Russia, India, China and South Africa) as some of the newly-emerged investors (Hall 2011). In most cases, land-use change involved in the crop boom are

for the purposes of food production, biofuel production, and, in a few emerging critical studies, flexing in response to multiple crises.[2] Thus the boom crops commonly discussed are palm oil, soybean, and sugarcane.

Meanwhile, crop booms always involve large-scale land acquisitions, popularly called 'land grabs', which are highly visible worldwide in the current literature and political debates (Margulis, McKeon, and Borras 2013). These land acquisitions include a dynamic change in land control: when someone gains access to land, those who were previously using it lose part of or full control of it. This aligns with the definition of land grabbing put forward by Borras et al. (2012), that land grabbing is essentially a form of '*control grabbing*': "grabbing the power to control land and other associated resources such as water in order to derive benefit from such control of resources" (Borras et al. 2012, 850).

Among these crop booms, one important emerging sector is the rapidly expanding tree plantation, which is linked to the increased demand for timber, pulp and other biomass products (Kröger 2014a). This has received much less attention compared to other sectors such as food, biofuels, and mining, despite its relative scale in terms of land area covered (Kröger 2014c). It deserves systematic research attention, if only because it is one of the biggest sectors in the current land rush in terms of land area involved. In addition, and perhaps even more importantly, this is also one sector that involves China in a more complicated way.

In the emerging literature, China is linked to the current global land rush as an investor in overseas production, a key player in the circulation/trade, and a key site of consumption, but rarely as an important destination of cross-border land investments within a crop boom. Where studies about land grabbing in China exist, the research is mainly about forced/illegal land transfers (*tudi liuzhuan*)[3], or development-induced land expropriation (Siciliano 2014, 2013).[4] In a subsequent section addressing the industrial tree plantation sector, I will show that there is a specific angle that can single out China as a distinct area of research in the global land politics literature.

Specifically: there is an expanding industrial tree plantation sector in Southern China, currently large-scale (in terms of total land area covered and capital involved), which involves foreign corporations (including Finnish and Indonesian ones) and a variety of state and corporate domestic partners. Various domestic actors, even individual local villagers, are involved in this investment complex. The villagers in question cannot be

fully expelled because of the specific rural land system.[5] The commodities produced are mainly for domestic Chinese consumption. In some places, the villagers embrace the land deals, while in others these land deals have provoked conflicts. This is a result of villagers' distinct interests based on their different positions in the sector (which include passive inclusion, active inclusion, passive exclusion, and active exclusion).[6] Thus, the specific political economy of the industrial tree plantation (ITP) sector, embedded in particular land-labour conditions in Southern China has made the case even more complicated.

Additionally, analysing the dynamics of the ITP sector in China also offers insights into the recent political discussion around land accumulation and dispossession. More specifically, there is a general assumption in the current land grabbing discussion that *the current corporate encroachment into rural areas tends to result in the expulsion of people from their land, and their transformation into landless labourers that mostly support the industrial development of urban areas*.

However, the current Chinese ITP sector deviates from this popular assumption. With the rise of the ITP sector in Southern China, villagers do not necessarily get dispossessed and become more vulnerable. Instead, villagers show diverse adaptive livelihood responses based on their different access to resources under specific institutional and social structures. As a result, villagers do not always lose, but at times can benefit, from the boom process. Moreover, this Chinese ITP case also shows a reverse labour and capital inflow from urban areas to rural areas, with a few villagers returning to rural areas and engaging in the ITP sector with the financial capital they gained in urban industrial sectors.

Therefore, the dynamics within the expansion of the ITP sector in Southern China demonstrates that capital accumulation is possible not only *with*, but also *without,* dispossession of villagers. Thus, an in-depth exploration of this exception can open an agenda for discussion in the global scholarship on contemporary land politics and agrarian transformations.

1.2 Accumulation and dispossession in agrarian transformations - Glances at the ITP sector in Southern China

Many scholars use Marx's "primitive accumulation" and David Harvey's "accumulation by dispossession" to understand land grabbing in terms of

its drivers (for accumulation), mechanisms (dispossession, and mainly coercion), and implications (reproduction of capitalist relationships) (Hall 2013). In this dissertation, instead of an attempt to unfold these loaded theories, I intend to position land politics, especially the dynamics of the land-labour nexus and livelihood change of the villagers, with the rise of the ITP sector in Southern China (in particular Guangxi), based on the classic discussions around "accumulation and dispossession". In this part, I particularly focus on the "land-labour nexus", which refers to the interconnected and interacted land and labour dynamics within the boom.

1.2.1 Accumulation with and without dispossession

Karl Marx was the first to give a critical analysis of the process of separating peasants from their means of production, and of capitalist development. In *Capital: Vol. 1, A Critique of Political Economy* (Marx 1887 orig.1992), Marx analysed the sources, characteristics, and mechanisms of capital by studying the history of western countries – especially the birthplace of capitalism, namely, England. When analysing the point of departure of the capitalist mode of production, he touched on the relationship between capitalism and rural development, and coined the concept of primitive accumulation (PA) - "the historic process of divorcing the producer from the means of production" (Marx 1887 orig.1992, 875). In so doing, he used the capitalist development process of European countries (such as England) to demonstrate how the expropriation of peasants through their forceful expulsion from their land supplied the capitalist labour market with "free and rightless proletarians" (Marx 1887 orig.1992, 885).

Marx's description of the bloody processes of primitive accumulation featured three important elements. Firstly, private ownership was converted from either Church property, state domains, common lands, or feudal and clan property. Secondly, these practices went hand in hand with fraud, force, violence, and coercion. Thirdly, expropriating and expelling peasants from land on the one hand enabled capitalists to increase their wealth and power via the control over the means of production, while, on the other hand, it created a reserve army of labour serving as cheap wage labour in urban industrial sectors. (Marx 1887 orig.1992, 908-913). In both ways, separating peasants from land facilitated the process of urban industry. Thus, according to Marx, proletarianization was a key element of the process.

Marx conceptualized primitive accumulation as a *stage towards capitalism*, or a precondition for capitalist accumulation, which he assumed would end when capitalism emerged. Based on Marx, David Harvey argues that primitive accumulation is *not* a stage in a unilinear process towards capitalism, but an ongoing feature of capitalism. Extending Marx's concept, Harvey proposes "accumulation by dispossession" (ABD) (Harvey 2003, 1) to understand the reproduction of capitalist relationships and continuous accumulation under the crisis of over-accumulation.

In his explanation of ABD, Harvey argues that although "all the features of primitive accumulation that Marx mentions have remained powerfully present within capitalism's historical geography up till now," there are several nuances that exist in the current context (Harvey 2003, 145). One the one hand, "some of the mechanisms of primitive accumulation that Marx emphasized have been fine-tuned to play an even stronger role now than [in] the past" (Harvey 2003, 146-147). This was the case for the role of the "credit system and financial capital" in fuelling the process of speculation and predation in contemporary capitalism, and that of the state in guaranteeing "certain structures of law, private property, contract and security of money" to facilitate the market system during accumulation through its "police powers and a monopoly over the means of violence" (Harvey 2003, 89). On the other hand, there are some new mechanisms. The development of technology, the degradation of the environment and the depletion of common resources has created new fields of accumulation - entailing the privatization and commodification of "cultural forms, histories, and intellectual creativity" (Harvey 2003, 148). Meanwhile, capital assets and labour power are devalued in response to global crises by international capital - sometimes backed by the investor state or superior state powers (Harvey 2003, 151).

Expanding the discussion above, and doing so within the context of China, Walker (2006) argues that the "alliance between money and power (...) has generated a particular form of primitive accumulation," which she terms "gangster capitalism" (Walker 2006, 1). She defined three main mechanisms of "gangster capitalism" in rural China. Firstly, the "urban bias" strategy of the central state in the 1990s, which prioritized urban development while reducing agricultural investment, was actually a case of state-organized "exploitation and oppression of peasants" (Walker 2006, 2). Secondly, the "two tract pricing system" (between agricultural products and industrial commodities) enabled the state-owned enterprises to obtain

cheap raw materials and extract resources in rural areas (Walker 2006, 3).[7] Thirdly, a few power-holders used the rural land reform (Household Responsibility Reform) of the 1980s-1990s as opportunities to illegally shift "state property and assets into their own hands" (Walker 2006, 3-5). These three mechanisms have had an important impact on how land, labour and agrarian transformation can proceed, and are key to the main issues that will be problematized in this study.

Although the mechanisms and distinct socio-economic contexts of capital accumulation identified by these scholars differ across time and space, the processes all lead to dispossession, and in most cases, displacement of rural populations. In this sense, capital accumulation is featured *cum dispossession,* under which villagers lose control over the land they previously used and do not get employed by the land investors.

Contrarily, Giovanni Arrighi argues that accumulation can occur without necessarily dispossessing villagers. When studying the success of Chinese economic development, he expands the notion of *accumulation without dispossession* (AWD) (Arrighi 2007). AWD, a term coined by Gillian Hart (2002) in her book, *Disabling globalization: Places of power in post-apartheid South Africa,* is a distinctive form of accumulation in China, which differs from the accumulation process in South Africa. Hart argues that the redistributive land reform in China reflects the specific context of Chinese industrial accumulation that took place without dispossessing rural populations from their land. (Hart 2002, 199).[8]

Building on Hart's reformulation of PA and ABD, Arrighi further explained the mechanism of AWD by addressing two aspects. On the one hand, China's household registration system (the *Hukou* regime)[9] prevented the spatial mobility of the rural population and "encouraged the rural to 'leave the land without leaving the village' [离土不离乡]" (Arrighi 2007, 361). The *Hukou* regime separates rural populations from the urban ones and is the basis for rural land distribution.[10] Thus, it in fact ties the villagers to the land, averting the full expulsion of these villagers from their land. On the other hand, the rise of Township and Village Enterprises (TVEs, the market-oriented but collectively-owned economic units) in rural China from the 1980s to the early 1990s, also supported AWD. TVEs provided off-farm working opportunities for villagers to obtain additional wages, while maintaining subsistence farming as a way to redistribute and reinvest the industrial surplus to the rural community "within local cir-

cuits" (Arrighi 2007, 361-364).[11] This means that companies could accumulate capital, not necessarily by separating the producers from their means of production (as in PA and ABD), but by employing low-cost rural labourers.

Partly in in line with Arrighi's arguments, Huang, Yuan, and Peng (2012) also claimed that the process of rural capitalism is not necessarily accompanied by "the spread of an agricultural proletariat" (139). Based on an empirical analysis of hired labour in the agricultural sector, they characterized agricultural development in China as "*capitalization without proletarianization*". They attributed this special form of capitalization to "the concatenation of the political-economic institutions (of equal distribution of land and a rural-urban divide in household registration) of China with its mode of farm organization under population pressure" (Huang, Yuan, and Peng 2012, 165). In other words, one the one hand, villagers' landholdings compensate their low wages in urban areas, thus sustaining a substantial supply of cheap labour for urban industry. On the other hand, wages from off-farm work also eliminate villagers' livelihood pressures due to a low return of farming on fragmented and tiny land plots (under the Chinese land system which will be elaborated below).

Similarly, Chuang (2015), in her study of a village in the Sichuan Province, pointed out that although land expropriations - following the scheme of ABD - also exist in rural China, "[l]abor, however, is cheapest in rural regions where residents are not dispossessed, and continue to subsist through farming." (292). She identified and examined one of the key mechanisms of AWD in contemporary China as enterprises employing rural land holders on very low wages to pass on the "social cost of workforce maintenance to rural governments" (275).

Thus, in contrast to PA/ABD, in the process of AWD, capitalists are able to accumulate without dispossession. In this context, investors are able to use cheap labour and create a reserve labour army without separating villagers from their means of production.

1.2.2 Diverse trajectories in the rise of the ITP sector in Guangxi

A key issue in the discussion on PA, ABD, and AWD is what happens to the villagers in question. Linking these concepts to a crop boom, in the classic Marxist conception of PA, dispossessing villagers of land is a key element of the accumulation process. Similarly, Harvey also pointed out a

renewed wave of land enclosure in new terrains (e.g. in China after its opening up) during ABD. Thus, as summarized in Figure 1.1, when *capital accumulation emerges with dispossession* (Type A), the villagers are dispossessed of land and not recruited by investors. As a consequence, these villagers are *bound to become more vulnerable* due to the loss of land (as a key livelihood source) and then *usually get excluded within a crop boom*.

In Arrighi's AWD, however, as mentioned above, villagers are not necessarily dispossessed of land during capital accumulation, especially in the case of China, because of the role of certain institutions – namely, the household registration system (*Hukou*), the land property regime, and natural endowment (in terms of high or low land density, which will be elaborated on later in this dissertation) – in preventing the complete expulsion process and protecting family farms.[12] In this sense, there is a possible alternative direction of change in the process of capital accumulation (Type B): *the villagers do not lose land while being employed by land investors*. Thus, they are able to *get included in a crop boom and at times be better-off*, because, rather than lose their previous source of livelihood, the villagers might have their livelihoods expanded through employment in the booming sector.

On this basis, a closer look at the dynamics of the rise of the ITP sector in Southern China tends to confirm a far more diverse trajectory of land, labour, and livelihood change. There are empirical cases (as will be illustrated below) which show dynamics of accumulation cum dispossession (Type A), and also cases (Case 2) which demonstrate accumulation without dispossession (Type B).

Moreover, in a few cases (Case 3), land and labour are both needed, which is a combination of the above forms of accumulation (Type C). It means that villagers, usually those without alternative livelihood sources (e.g. migrant workers in urban areas), are not only dispossessed of land, but also exploited for their labour power (i.e. becoming cheap wage labourers). Because the jobs available for unskilled labourers in the ITP sector are always temporary and seasonal,[13] these villagers' livelihoods become more vulnerable compared to the above types.

Additionally, sometimes neither land nor labour are needed by investors (Type D). Thus, this group of villagers is not exploited (of their land and labour) during the encroachment of the ITP sector. In these cases (Cases 4-6), no one else accumulates at the expense of these villagers during the rise of the ITP sector, although this might not be the case in other

sectors. Within Type D, a few villagers choose not to engage in the booming sector (see Case 4), while some others become independent eucalyptus planters (see Case 5). Furthermore, there are also a few villagers who accumulate land from their fellow villagers and become owners of ITPs (see Case 6).

However, the schemes of accumulation are not static and sometimes change for specific reasons (as shown in Cases 7 and 8). These add complexity to the land politics in the context of the rise of the ITP sector.

Figure 1.1 Accumulation schemes within the rise of the ITP sector in Southern China

Type A *Accumulation cum dispossession (PA/ABD)* Case 1 The land is needed, but the labour is not. *Dispossessed of land, passively excluded from the crop boom*	**Type B** *Accumulation without dispossession (AWD)* Case 2 The land is not needed, but the labour is. *Non-dispossessed of land, provision of cheap labour, (positively) included into the sector*
Type C *Dual accumulation* Case 3 The land is needed, so is the labour. *Dispossessed of land, provision of cheap labour, passively included into the sector*	**Type D** *Non-accumulation* Case 4,5,6 The land is not needed, nor is the labour. *Non-dispossessed of land, positively incorporated into/excluded from the crop boom*

Case 1: *In a remote village in Guangxi, the forestland was collectively-owned without distribution before the rise of the ITP sector.*[14] *A few villagers used the forestland to cut firewood as way to support their livelihood. In 2008, facilitated by the local state, the land is leased to a foreign company for 25 years. The contiguous forestland (around 7000 mu) is then converted into a eucalyptus tree plantation to provide the raw materials for the company's paper production.*[15] *The villagers then lose part of their income from*

cutting firewood. Meanwhile, their food production on the nearby farmland plots is negatively affected by the ITPs due to the environmental impacts of the fast-growing trees. Under this condition, most of the villagers are not employed by the investors.

***Figure 1.2** Contiguous forestland for ITPs*

Source: photo taken in Guangxi on 18 March 2015

This case showed a typical dispossession process as framed by Marx and Harvey. These villagers lost control over the previously commonly-use land and did not get incorporated. This is an emblematic example of Tania Li's (2011) argument that, when "the land is needed, but their labour is not", exploitation and exclusion are the most logical outcome. This type of agrarian process has occurred in many parts of China during the recent decades, including in Southern China and in processes linked to the rise of the ITP sector.

Case 2: A woman from a village in Guangxi was a migrant worker in urban areas, but later returns to the village to take care of her child. She farms the land plots distributed to her while doing temporary paid on-farm work for fellow villagers at the same

time. With the rise of the ITP sector, she has not yet lost control of the land, but get the chance to work on ITPs (weeding and fertilizing) in nearby villages for both foreign and domestic investors.

Case 2 is different from Case 1 in the sense that it illustrates an example of the expansion of the ITP sector not resulting in the expulsion of villagers from their land. It is an example of *when the land is not needed, but the cheap labour is*. This is more aligned with AWD. This villager does not lose control over the land she possessed and is employed in the ITP sector. She represents the 'surplus labour' described by Marx, but she is not a proletarian who is totally separated from the land and related social relations. Under this scheme, villagers are incorporated into the crop boom and able to gain, albeit very little, income from the sector.

Case 3: *The collectively-owned forestland (500 mu) of a remote village is leased to several domestic investors (from both the locality and outside) for the purpose of setting up an ITP. Under this scheme, the villagers still control several patches of farmland distributed in the 1980s. Later, a few family members are employed by a few investors as workers on the plantation.*

Case 3 seems, at first glance, to fit in with Arrighi's AWD. The villagers maintain control over their small farmland plots and get incorporated into the emerging sector as wage labourers. However, when taking a closer look, this case also contains elements of Harvey's ABD. Due to the leasing process, villagers have, in essence, lost and been dispossessed. They have lost effective control of large-scale collectively-owned land (while remaining the nominal 'owners'), on which they might otherwise have constructed their own ITPs and then shared the bulk of the profits. They were converted into workers but did not migrate to urban areas. This case is an example of when *land is needed, so is the cheap labour*, which includes the dual mechanisms of accumulation (ABD and AWD). In a way, this is similar to what Watts and Little (1994, 81) describe as the "disguised proletariats". This is a common occurrence around the world in places where contract farming schemes and lease agreements are practised between companies and villagers.[16] Thus, under this scheme, villagers tend to be exposed to a more vulnerable situation. Their inclusion is under unfavourable terms which usually bring more loss than benefit, which is closer to McCarthy's (2010b) framing of adverse incorporation[17].

Case 4: Faced with the expansion of the ITP sector, one villager in Guangxi buys a truck and engages in the transportation business (at times including eucalyptus trees). However, on the nine mu farmland controlled by his household, he plants sugarcane instead of eucalyptus trees, because he believes that currently the price of eucalyptus trees is lower than that of sugarcane. Moreover, he thinks that planting eucalyptus trees can only bring an income every 4 or 5 years, while cultivating sugarcane can contribute an income every year, which will be able to cover the household's annual expenses.

Case 4 is an example of when *the land is not needed, nor is the labour*. The scenario is different from that which is created by Marx's PA, Harvey's ABD, or Arrighi's AWD. The villager is not dispossessed of the land he controls - as is usually the case with PA/ABD. Neither is he turned into cheap wage worker - as normally occurs under the AWD. Meanwhile, this villager represents a group of villagers who are excluded from the crop boom, but their exclusion is not the result of being dispossessed by others, but an active "stepping out" (as adapted from Scoones 2012, 515) of their own will. They control sufficient means of production or/and capital, but decide not to engage in the crop boom, although some of them might be involved in the related upstream/downstream sectors. This implies non-accumulation in the process.

Case 5: *A young couple from a village in Guangxi are working as migrant workers in a big city. Their wages are the main source of their whole family's income. With the rise of the ITP sector, they plant eucalyptus trees on some parcels of the land they control that are not good for paddy rice and vegetable production, and in anticipation of a good market for eucalyptus trees. Growing eucalyptus trees does not require a significant labour input, since the trees only require care during the first planting phase. After planting, the young couple goes back to the city to continue their wage work. The eucalyptus trees they plant are like an additional saving. After the first logging, this couple receives 100,000 Yuan.*[18] *As pioneers in the planting of eucalyptus trees in the village, they really earned some money.*

Case 5, similar to Case 4, does not fit the scenario of accumulation cum dispossession, nor is it aligned with that of accumulation without dispossession. It is an example of "*neither their land nor labour is needed*". They are neither dispossessed of the land nor converted into cheap wage workers in the ITP sector, although their labour is needed in urban areas. With the rise of the ITP sector, they choose to become independent planters based on the resources they possess (in particular land). Thus, under this scheme, they do not lose, but are able to gain from a crop boom.

Case 6: *When a paper-pulp company entered the village and leased the collectively-owned forestland for ITP sector, one villager who used to do migrant work in Guangdong province came back and also engaged in the ITP sector. In 2005, he leases 30 mu forestland from his own village with the money he earned in the urban area. At the beginning, he only cultivates the trees with his wife. Then, he expans his plantations gradually through leasing, to a total scale of more than 100 mu in 2015. Now he employs seasonal labour to help plant trees, fertilize, weed, and log the trees. Although such intensive investment in the ITP sector is risky (e.g. the typhoon attacks in summer), he still has a big chance to make a fortune.*

Case 6 is also an example of when the land and labour are not needed during the crop boom. This villager is not exploited of his land or his labour. Instead, he engages into the crop boom and becomes a capitalist himself, with an attempt to employ rural surplus labour. He is able to accumulate land at the expanse of his fellow villagers based on his privileged access to information and recourses (particular financial capital gained from his migrant work). This shows a typical process of "accumulation from below", similar to the analysis by Yan and Chen (2015). It implies that the villagers in question are not homogeneous in the context of massive internal migration in China (as will be elaborated in Chapter 5 and 6). Although mass numbers of villagers give up farm work in rural areas and migrate to urban areas as cheap wage labour in the industrial sector to facilitate capital accumulation (Arrighi 2007, Chan 2010), this case reveals that a few villagers give up waged jobs in the urban areas and use the income earned from the industrial sector to invest in the booming eucalyptus sector. This indicates an opposite direction of labour and capital flow: from the urban industrial sector to the rural agricultural sector.

Case 7: *With the encroachment of the ITP sector, a middle-aged man who has a job in the town (as an electrician) starts to plant eucalyptus trees in his hometown on around 10 mu of forestland distributed to his household in the year 2008. Two years later (in 2010), he decides to give up due to the possible significant investment in transportation in the future. He contracts his forestland together with the trees already planted to Stora Enso for a 30 year term.*

Case 8: *With the expansion of the ITP sector, one rural household plants eucalyptus trees on their farmland distributed under land reform. Later, the county government organizes a movement to clean all the eucalyptus trees planted on the farmland. After*

this, only a small plot of eucalyptus trees, as shown in Figure 1.3, very near harvest, is maintained. Because of this, a few of villagers contract their land to specialist companies/entrepreneurs involved in food production (e.g. maize, sugarcane, and fruit trees).

***Figure 1.3** Small plots of eucalyptus trees remained in farmland in Guangxi*

Source: Photo taken on 7 April 2015 in a county in Guangxi where the removal of eucalyptus trees had taken place. The land plots on which previously eucalyptus trees were planted are now used to cultivate maize.

Case 7 and Case 8 denote that land politics with a crop boom are dynamic. Although some villagers are not dispossessed and engage in the sector for a certain period, they might leave their land and/or be dispossessed later for a variety of reasons. In a certain political-economic context, the process of AWD might later turn out to have a similar effect to that of ABD. Thus, the schemes discussed are interchangeable, which reminds us to make dynamic analyses.

The above eight cases can be expanded to illustrate variegated trajectories of land control, labour regimes, and livelihood change associated with the rise of the ITP sector in Southern China that underpin Chinese agrarian transformation. Moreover, these cases relate to the current debates on

land politics based on classic formulations of PA, ABD, and AWD. The illustrative cases cited above show that, while PA, ABD, and AWD are all helpful lenses, the messy realities of social actors and social relations on the ground are not always fully and neatly captured by these concepts, much less by one such single conceptual lens. This messy reality thus warrants deeper examination. Building on the broad formulations discussed above, this study seeks to explore land politics in a relational and dynamic way, focusing on the land and labour nexus and villagers' livelihood changes in the context of the rise of the ITP sector in Southern China. The challenge is not to study each ideal-typical case above, but to understand the dynamics within and between these ideal-typical cases, and to reflect on their relevance in the current discussion on global land politics.

The ITP sector in China was chosen as the main study subject for two main reasons. The first reason is the agrarian, political, and economic characteristics of industrial tree plantations, which are relevant to the linkage between urban industry and rural agriculture, the land-labour nexus (land-intensive but not labour-intensive), and the environmental-economic complex (fast-growing tree crop). The second reason is the geopolitical and economic character of the country chosen as a case study, namely, China. While China is usually perceived as an active transnational investor in contemporary transnational land politics, this case features it as the foreign investment host country – somewhat similar to what Borras et al (2012) call "land grabbed land grabbers" in the context of Latin America. Moreover, China, as a country with a bureaucratic hierarchy and a specific rural land property system (referring to the separation of land property, land contracting, and land management/user rights, which will be elaborated on later in this chapter), is experiencing a political, economic, and social "transitional period." This transition started with the market reform of the 1980s, and involved a series of political and economic changes (as will be analysed later in this chapter), both within and beyond the country (Day 2013, 1). A series of political, socio-economic and institutional changes, including the recentralization of the fiscal regime and massive rural-urban migration, make the agrarian transformation in rural China into a very complex and uncertain issue.

As shown in Table 1.1, China is a major worldwide producer of industrial trees. The industrial tree plantation sector in China emerged slowly in the 1980s, but gained momentum and expanded dramatically from the 1990s onwards. It is concentrated in Guangxi, as well as in other southern

parts of China, namely in the Hainan, Yunnan, Fujian, and Guangdong Provinces.

***Table 1.1** The area of Chinese "planted forest"(/plantation) in 1990, 2010, ITPs in the 1980s (thousand ha)*

	Area of ITPs at the end of the 1980s [a]	Area of 'planted forest' in 1990[b]	Area of 'planted forest' in 2010[b]	Area of planted forests with introduced (exotic) species in 2010[b]
China	400	41950	77157	21603
Global	1275	94938	152902	44589
Chinese ITP (%)	31.37%	44.19%	50.46%	48.45%

Source : the data in this Table was synthesized by the author based on the EJOLT report (Overbeek, Kröger, and Gerber 2012), Bazett (1993), as cited in Carrere and Lohmann (1996), and FAO (2010). The ITPs here include rubber tree plantations and palm oil plantations.

Among these ITP sites, Guangxi – a key hub of the ITP sector in China – will be the regional focus of the research, with a specific focus on the eucalyptus subsector. Guangxi is situated in the south-east of China, on the border with Vietnam (see Figure 1.4). The geographic location has created suitable natural conditions for eucalyptus plantations (a subtropical, mild and moist climate), as well as geopolitical advantages; it is the first ASEAN–China Free Trade Area, and benefits from such national development initiatives as "Western Development", "Costal development", and "Development of minority region". All these have contributed in some ways to the development of ITPs in the region.

To date, Guangxi has more than one-third of the fast-growing plantations in all of China, and is the top ranked eucalyptus area in China. The rise of the ITP sector in Guangxi is the result of both state and non-state actors' efforts, which will be systematically analysed in Chapter 2.

Among the investors in these eucalyptus tree plantations in Guangxi, two transnational companies, namely Stora Enso from Finland, and APP from Indonesia, have received much attention. Stora Enso kick-started its eucalyptus tree plantations in Guangxi in 2002. By 2015, the ITPs owned by Stora Enso had expanded to 82.26 thousand ha, accounting for around 5% of the total ITPs in Guangxi (2010) and with sites located in Beihai,

Nanning, Qinlian and Yunlin (StoraEnso 2016a). APP started to plant eucalyptus trees in Guangxi in 1995. Currently, its eucalyptus tree plantations have expanded to Qinzhou, Nanning, and Wuzhou, with a total acreage of 100 thousand ha, which is 6% of the overall area of ITPs in Guangxi (Liu 2010b)[19].

***Figure 1.4** The map of Guangxi*

While these ITPs have been controlled by these foreign investors, they have also affected thousands of village households, and provoked widespread conflict among villagers, state farms, and foreign companies. Some

of these conflicts are related to the compensation for land expropriation, as in the case of the conflicts between Stora Enso and the villagers of Hepu, Guangxi (Ping and Nielsen 2010a). Some of the villagers' acts of resistance flared up because of the negative impacts of ITPs on the local environment, including overusing local water and soil resources, and threatening biodiversity. In short, based on their scale and political implications, these foreign-invested eucalyptus tree plantations are playing a critical role in the ITP sector in Guangxi.

Associated with the complexity of these foreign land investments in the ITP sector, a few basic questions arise: Why do these foreign companies choose to engage in the ITP sector in China? This is a question for the foreign investors. Why are foreign land investors able to engage in the ITP sector? This is a question for the Chinese state and land owners. These are only entry questions, as an initial attempt to answer them leads to a maze of recent and dramatic agrarian transformation in Guangxi involving land control, land-use, labour conditions and villagers' livelihood changes, within and around the sector of industrial tree plantations. In turn, this maze leads to more complicated questions about how such intersecting international and domestic capital on the one hand, and land, labour, and livelihoods of the rural villagers on the other hand, shape and are reshaped by each other's strategy. The potential relevance of such research is quite wide, and goes beyond the ITP sector and beyond China: on the one hand, it reflects the dynamics of livelihoods, land, and labour in Chinese agrarian transformation; on the other hand, it relates to land politics and rural politics in the global context (as will be elaborated in the part 1.4).

1.3 Research questions

Based on the framing of the problematique above, and looking at the intersection of international and domestic dynamics of capital, land, and labour politics, the central research question asked in this study is:

Why and how did the industrial tree plantation sector expand in Southern China in the past two decades, and what implications does it have for the livelihoods of rural villagers there?

This central research question is split into the following working sub-questions:

1. What are the **conditions** that have fostered the massive and rapid expansion of the Industrial Tree Plantation (ITP) sector in Southern China

in the past two decades? The factors I will mainly focus on are the following:

(1) The agronomic conditions for growing eucalyptus (suitable climate, geographic conditions in Southern China, as well as the development of genetic technology that makes the eucalyptus species popular in Southern China);
(2) The surge in demand for consumer products from the eucalyptus sector, such as paper and timber;
(3) The institutional land and labour conditions in rural China that facilitated the rise of the ITP sector:
    a) the dual property system of rural land and forestland reform;
    b) massive internal rural-urban migration;
    c) the 2002 and 2008 rural tax reforms;
(4) The financial capital, especially the foreign capital, involved.

2. What is the role played by **the state and corporations** within the rise of the ITP sector in Southern China?

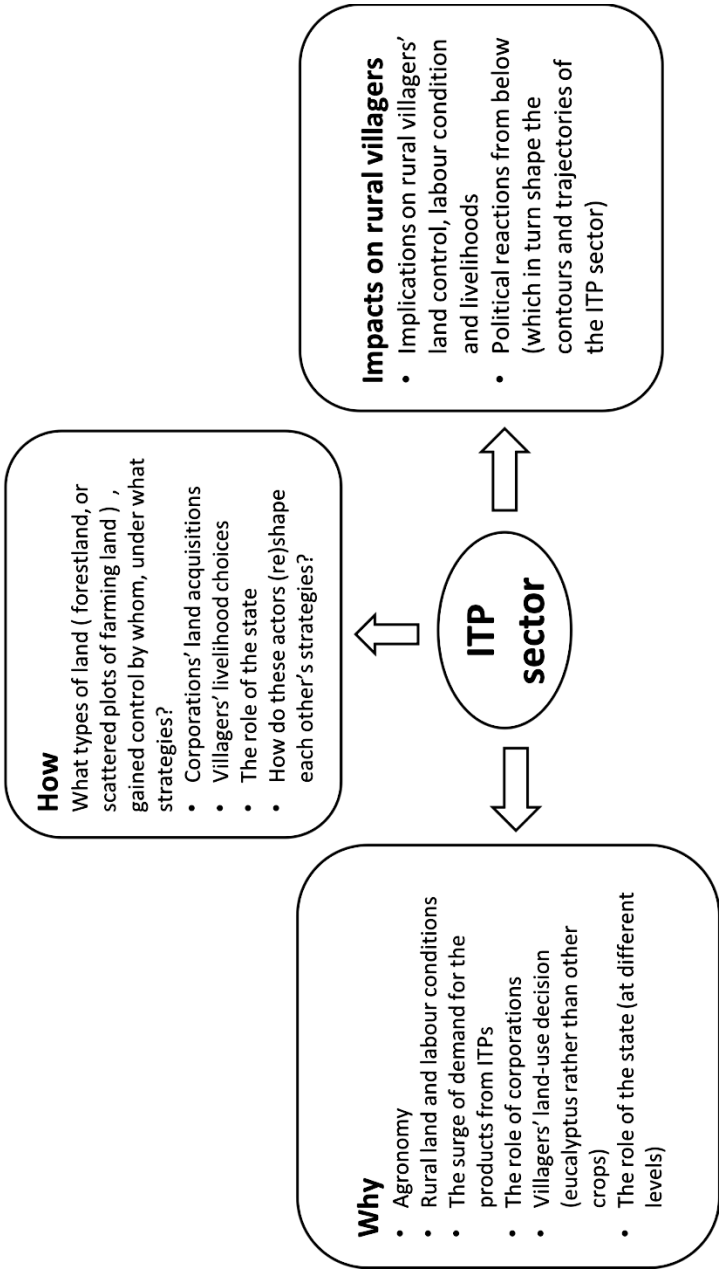
(1) How did the state (central and local) intervene in the eucalyptus tree sector boom? The state's role (strategies/ influence/ intervention) is never independent and static, but (re)shapes and is (re)shaped by the actions of the other key actors (corporate, villagers). Thus, this question should be answered in a dynamic and relational way.
(2) What is the role played by corporations, particularly foreign companies, in this sector, and to what extent?
    a) Why did foreign companies choose to invest in China? Why did they choose to expand their business to get involved in the production of raw materials? And more importantly, why did they choose to acquire land in China, considering China's relatively fragmented landscape and complicated land regime?
    b) Why did the Chinese state allow international investors to gain significant influence in this sector? Is it an anomaly that these foreign companies are able to gain control over natural resources when Chinese companies are observed going abroad to seek control of similar resources (e.g. land)?

c) What are the various land control strategies used by these companies in China, and what are the respective institutional arrangements? In what way are the foreign companies' land acquisitions similar to, and different from, domestic investors? Are there any (potential) conflicts between these land control practices?

3. What is the role played by **rural villagers** in Southern China with the rise of the ITP sector? And what are the implications of the ITP sector on these villagers in terms of the political economy of their livelihoods?

(1) How did the ITP sector impact rural villagers' autonomy and capacity to construct, defend, consolidate, or expand their livelihoods? What are the livelihood choices of these villagers in response to the boom of the ITP sector? Do they actually lose or win during the process? I will answer these questions by taking the differentiation of the villagers and their distinct relations with the sector into account.
(2) What are villagers' perceptions of the encroachment of the ITP sector? What are their political reactions? To answer these questions, I will highlight the distinct interests of the villagers in question in the crop boom.

Figure 1.5 *Research problem structure*



1.4 Objectives and relevance of the study

The main objective of this study is to understand the political, economic, and ecological reasons for, and the implications of, the significant expansion of the ITP sector in China. It is the aim of this study to understand more systematically why the sector evolved the way it did in terms of scope, pace, character, and trajectory. Equally importantly, the study aims to understand the political, economic, and ecological reasons for this sector to develop in Guangxi. In many places in the world, industrial tree plantations are more commonly developed using large-scale industrial mono-cropping production methods. But in Guangxi, the ITP sector also employed a mode of production involving spatially scattered plots and small-scale individual planters. It thus involves numerous transactions and contracts with numerous plot-holders and planters, with patches of eucalyptus trees scattered all over Southern China.[20] At first glance, the institutional and geographic characteristics of such a mode of production would have slowed – not expedited – the sector's growth. The answer to this puzzle is thus not obvious, and needs to be investigated more carefully.

Finally, it is also the objective of this study to examine more carefully the impacts and implications of the rise of the ITP sector on the livelihoods of villagers. Conflicts have erupted in many places in the world where this sector is present; many of these conflicts consist of resistance struggles against the sector by local communities and groups that are expelled from their lands, or instead are triggered by environmental concerns. Some of these can also be noted in China. However, the political-economic impacts of this sector on villagers' livelihoods seem to be far more diverse than in other agricultural sectors, featuring both positive and negative consequences. Thus, the villagers' political reactions to the sector cannot be straightforwardly termed politics of resistance. It is therefore the objective of this study to better understand such varied political reactions.

The study has a broader relevance – within China and beyond. By answering the key question in this research, my study hopes to offer useful insights into the ongoing conceptual, empirical and methodological discussion about land politics (see Scoones et al 2013, Edelman 2013, Oya 2013). "Control grabbing" (Borras et al., 2012) as the essence of land grabbing is an important element in restating the relevance of this study. The

logic of capital is to generate profit (Marx 1887 orig.1992). Capitalist investors will thus do wherever they can to make profit, although within a few boundaries (e.g. ecological ones) (Van der Ploeg 2009, Friedmann 2016, Moore 2017). Facilitating capital accumulation is a key task of the state, along with maintaining political legitimacy (Harvey 2003, Fox 1993). By revisiting these critical concepts described above, this study argues that the case of the Guangxi ITP sector will contribute to global debates. This contribution will be drawn not only from examining more carefully a case of a "land grabbed land grabber", but also, and perhaps more importantly, by showing the diverse mechanisms of land control and multiple implications for local villagers' livelihoods – which are less present and/or less explored in many non-Chinese cases of land deals in the current scientific literature. To better capture the dynamic of land politics, this study develops a more nuanced typology of villagers' situations in the crop boom, and actively engages with the discussions around accumulation and dispossession. By doing so, instead of debating the applicability of either primitive accumulation (PA), accumulation by dispossession (ABD), or accumulation without dispossession (AWD), I argue that the central concern is when and how each of these types of accumulation occur – because both accumulation with and without dispossession occur simultaneously in the industrial tree plantation sector in Guangxi.

1.5 The political economy and political ecology of industrial tree plantations

In this section, I will go into a more elaborate discussion of the problematique, concepts, and questions mentioned above. I do so by tightly linking the discussion to concepts that are much closer to the political economy and political ecology of ITPs, as well as by addressing some empirical issues related to ITPs in general and Guangxi in particular. As previously mentioned, the ITP sector is less often addressed by the emerging literature on global land politics, despite it being responsible for far broader land-use changes than other boom crops.

It is important to quickly address some fundamental characteristics of this sector. First of all, the concept of an ITP should be clarified, as various authors have given several different definitions (Overbeek, Kröger, and Gerber 2012, Kröger 2012, Sheldon and Styring 2011, Gerber 2011b). In this study, ITPs refer to monocultures of non-food tree crops, mainly fast-

wood forestry. They are not only those large-scale forestry planataions owned/controlled by corporations, but also large-scale individually-owned and small-scale villager-owned tree plantations. As such, oil palm tree plantations mainly used for food production (palm oil) are excluded. Natural rubber tree plantations are also not included. Instead, I adopt a narrow definition of ITPs to include mainly eucalyptus, pine, and acacia trees. Eucalyptus trees, with a faster growth rate and a quicker and more massive expansion trend in Southern China than the other two species, are the main focus of my study. However, this does not mean that I plan to isolate the eucalyptus sector from other ITP sectors – or, for that matter, from other agricultural sectors. Instead, I will examine the eucalyptus sector in a relational way, while maintaining focus on it. Thus, throughout this study, I refer interchangeably to the eucalyptus sector and the ITP sector; in those sections where it becomes important to distinctly refer to the broader and more comprehensive ITP sector, I will indicate this to the reader.

As shown in Table 1.2, ITPs have several key characteristics in terms of their production mode, the species' agronomic features, product usage, source of capital, labour, and land relationships. Some of these are shared features of all boom crops, while some are unique and might lead to particular dynamics.

***Table 1.2** The characteristics of the ITP sector*

Items	*Features*
Production mode	Cultivated on land (mainly forestland rather than farmland)
Species' features	Fast-growing, exotic species
Products' usage	Non-food use (as raw materials for industrial production)
Source of capital	Mainly from industrial sectors (both domestic and international)
Labour-land relationship	Land-intensive but labour-saving/expelling

Similar to other boom crops, ITPs are cultivated on land. Thus, with the rise of the sector, the main considerations are the land on which to grow trees, as well as the agronomic conditions (temperature, rainfall) and the particular species needed to maximize tree production. Thus, in a way,

it is very much traditional agricultural production. There are other institutional and political issues that bring the sector closer to some other boom crop sectors.

In order to develop ITPs, the investors need sufficient access to a sufficient quantity of land. In general, ITPs are grown using industrial and mono-cropping methods, and require relatively contiguous blocks of land for more efficient production. They require "often tens or even hundreds of thousands of hectares" (Overbeek, Kröger, and Gerber 2012, 21). As the current global ITP boom is recent (only since the 2000s), the land currently used for ITPs was either "'marginal', 'degraded' or 'unused'" forestland (as ITP investors claimed), or previously "occupied or used by the local communities" (Overbeek, Kröger, and Gerber 2012, 21-22). However, this is not always the case. In Vietnam, the ITP sector is based on smallholder units (Sikor 2011). China features both dynamics; this is largely conditioned by the institutional arrangement on land-use policy, as I will explain in the next part.

Looking at the various types of production and land-use is one thing, and looking at the dynamics of land-use *change* is another.[21] Is it a land-use change to switch from food production to ITPs? Or from a natural forest to ITPs? Or is that the case when switching from agronomically marginal lands to ITPs? These questions are important because there are different possible ways in which social relations can be recast around the ITP sector, and the implications this has on the livelihoods, land property, labour regimes, and ecology (see Borras and Franco 2012) in the area. Taking China as an example, an attempt to map variegated directions of land-use change and their respective mechanisms can be complicated. State-owned farms or foreign firms may lease privately-owned land from individuals, or collectively-owned land from the local government. An individual villager who owns the land may also be incorporated into the ITP sector through an out-grower contract/independent cultivator. Thus, various types of land-use change and their mechanisms - how the land is accessed for the development of ITPs, from whom to whom and through what ways - complicate the accumulation process in ITP cases.

Borras and Franco (2012, 50) state that "land policies neither emerge from, nor are carried out, in a vacuum". Land cannot be separated from the social relations surrounding it. Thus, land-use change tends to be accompanied by property relationship changes (from collective or privately-owned land to company-controlled land), agrarian change (some from

peasants to proletarians or semi-proletarians, while a small group of poor peasants become richer and accumulate land), and livelihood strategy changes by the local villagers (from sugarcane planters to eucalyptus tree planters, or from crop producers to wage labourers in the urban area). The complicated typology of land-use change corresponds to the complex property relationship changes, agrarian changes, and livelihood strategy changes, which further complicate the dynamics of the agrarian transformation processes.

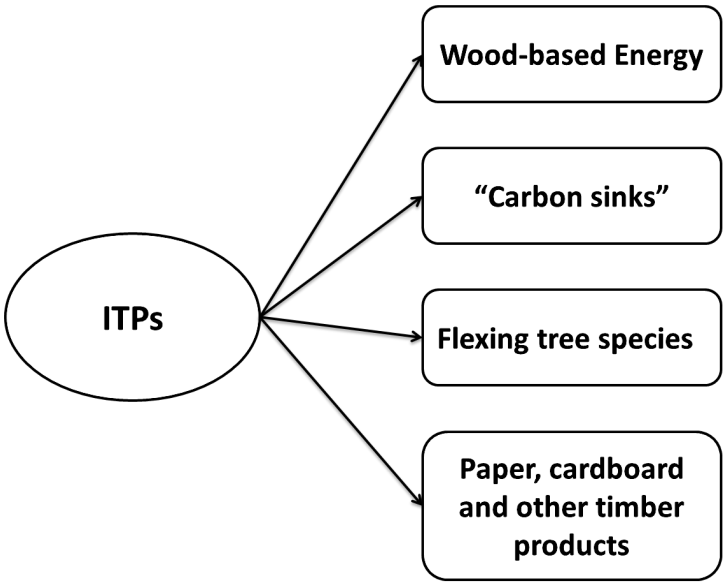
In short, the development of the ITP sector requires a lot of land, and has profound implications on land relations. But the ITP sector also has key features that have important economic, agronomic and environmental contradictions (Lungo, Ball, and Carle 2006). Fast-wood tree crops are very attractive from an economic perspective, bringing high benefits, and low labour and production costs. Taking eucalyptus, for example, the average price of the output is about 600 Yuan/m^3 (average yield is about 10 m^3/ mu[22] per year), while the average cost is only 200-300 Yuan/mu per year. Together with the features of fast returns on investment (eucalyptus can be logged in 4-6 year rotations) and regeneration ability (one eucalyptus tree can naturally generate two or three shoots after logging), investments in ITP tend to yield great monetary profits. This implies that great monetary profits can be extracted from the ITP sector. As commented by a villager in Guangxi, "planting eucalyptus trees is like (constructing) a bank there" (Field notes, 6th March 2015). Whether it is the corporation or the villager who ultimately corners the main chunk of the profit is another matter.

In terms of the environmental aspect, monoculture-oriented tree species have significant effects on local ecologies. The ITP's fast-growing characteristic is linked to sharp demands on water and soil nutrition within a short growth period (Calder et al. 1997, Calder 2003). Furthermore, the genetically modified characteristics of the tree crops may inevitably affect the balance of the natural ecosystem. Most foreign companies claim that their investments in ITPs are sustainable: environmentally-friendly (restoring rather than damaging the environment) and providing eco-service to the local community (reforestation to provide site and habitat protection, carbon sequestration etc.) (Storaenso , APP , UNDP 2012). In practice, however, the ITPs are always complained about as "water pumps" and "nutrition pumps" by the local people, due to their negative effects on

local hydrological and soil conditions, and also criticized as threats to biodiversity (Gerber 2011b). Moreover, the industrial mode of production, especially the chemical fertilizers and herbicides used, aggravates the environmental and ecological destruction.

As to the usage of products, here too the ITP sector shows unique features. In contrast to most boom crops (e.g. sugarcane, oil palm, soybean, etc.), ITP products are completely inedible, and are largely used as industrial raw materials. According to Overbeek, Kröger, and Gerber (2012, 15), eucalyptus plantations are mainly "destined for pulp and fuelwood". Kröger (2014a) identified other ITP uses, such as wood-based energy (including bio-refineries, electricity, and heating), and "carbon sinks" (as shown in Figure 1.6).

***Figure 1.6** The multiple uses of ITPs*



Source: Adapted from (Kröger 2014a, 5)

These multiple uses indicate that the eucalyptus tree crop has the potential to flex with the development of technology and increased demands for its products in the context of the convergence of fuel and environmental crises (Kröger 2014a). Meanwhile, these products imply that the

sector is not associated with the global food-fuel debates which have commonly been discussed in the current literature, but are closely related to the fibre-fuel-environment complex and actors from industrial sectors, including paper-pulp companies, construction companies, automobile companies, textile producers, and energy producers (Kröger 2014a). The sources of capital from these industries are both domestic and international. In the Chinese case, the international capital involved in ITP investments deserves careful examination. In large-scale land deals, Chinese companies are usually considered to be either greedy "grabbers" (Gray 2008) within the neo-colonizer framework (Buckley 2013), or "foreign investors" (Buckley 2013, Bräutigam and zhang 2013). China is seldom referred to as a key foreign investment site itself nor, as I mentioned earlier, as "land grabbed land grabbers" (Borras et al. 2012).

Furthermore, ITPs generally need less labour compared with the cultivation of other crops (e.g. sugarcane). They are thus land-intensive but labour-saving/expelling crops. Such a land-labour relationship adds complexity to the agrarian change underlying the rise of capitalism in rural areas. On the one hand, the land-intensive character of the sector implies that lands have to be acquired from someone and from somewhere. This may or may not displace food production, and may or may not dispossess peasants. In cases where peasants are separated from their land, the low labour demand in the ITP sector almost eliminates the chances of them being incorporated into the value chain as wage labourers. Expulsion can also be more complete in the ITP sector. As the case analysed by Gerber and Veuthey (2010) in Ecuador shows, the expansion of the ITP sector is followed by large-scale rural displacement. The dispossessed villagers cannot be included in the plantations, as the job opportunities in the ITP sector are limited and temporary, concentrated during the planting and harvesting stages. Kröger (2012) similarly witnessed rural exclusions in Brazil underlying the boom in the ITP sector, driven by an alliance between the industrial sector and the state. On the other hand, the non-intensive labour demand makes it possible for villagers to keep the ITP as a supplementary income while working in on- farm or off-farm jobs at the same time. In this sense, the land-labour relationship in the ITP sector provides villagers with additional livelihood options. Empirical results from a household survey in Vietnam (Sikor 2011), for instance, outline the various on-farm and off-farm livelihood choices for the smallholders of commercial tree plantations.

1.6 Transitional rural China

An ITP sector emerges and develops differently from one society to another. As various studies suggest, the similarities and differences between societies are largely conditioned by pre-existing agrarian structures and institutions – including class formation, the character of the state, land property relations, and institutions – as well as the characteristics of village-city and agriculture-industry linkages. Thus, when taking a quick look at how ITPs emerged over time in Canada, Finland, Uruguay, Brazil, Indonesia, and Vietnam – from agrarian political economy and political ecology perspectives – one can see important similarities and differences. In understanding the political economy and political ecology of ITPs, it is important to pay attention to the specific structural and institutional contexts within which they emerged. It is thus important to look into the agrarian and ecological transformations in China that are relevant to our understanding of the rise of ITPs in the southern part of this country.

In this section, I will focus the discussion on the key themes emphasized above, namely: (i) the broad context of agrarian transformation in China, especially from the 1980s onwards; (ii) land property relations and institutions, with an emphasis on the household responsibility system (hereafter HRS): this involves addressing the ways in which plots have been awarded to HRS recipients where land quality and land-use resulted in one household having several plots of land (some for paddy rice irrigated cultivation, others rocky and hilly without much cultivation, until the eucalyptus sector came in); in addition, it implies addressing the ongoing public debate about possible land property reforms awarding full scale private property; (iii) rural-urban migration and its implications on the labour supply in the countryside (and the resulting farming adjustments made in the villages), as well as on the household incomes of villagers; (iv) ecological trends in China, including issues and debates around environmental awareness that will have some implications on how the ITP sector has evolved so far; and (v) rural tax reforms and land-use reforms that have implications on how land-use is decided upon, and deployed tax incentives that have impacted on the emergence of ITPs over time (in relation to other agricultural sectors, such as sugarcane).

Following the communist revolutionary triumph in 1949, class labels were soon applied to households – they could be part of the "good class" (the proletarians and small peasants), or the "bad class" (landlords and rich

peasants). During the original revolutionary land reform, the lands of the "bad class" households were confiscated and redistributed to those that were part of the "good classes" (Unger 2002). Later, in the mid-1950s, "the Chinese government commenced a process of collectivizing [the] agricultural organization" (Kung 2000, 703). Those labelled as belonging to the "bad class" were discriminated against and given a very low social-political status until the late 1970s (Unger 2002). In 1978 China's "reform and opening-up" (*Gaige Kaifang*) was launched, and further accelerated after the 1992 'South Talk' by Deng Xiaoping.[23] During this reform period, rural areas in China also experienced a process of de-collectivization, which introduced changes not only in the land property system, but also in the agrarian structure. Most villagers became small peasants with user rights on tiny pieces of land under the land property system, meaning that they did not have full property rights to their land. But according to Unger (2002, 146), a group of villagers could become rich through "their own skill and resourcefulness" or through political power by functioning as cadres. He (2011) also witnessed a new "middle peasant" class emerging with the free circulation of land based on personal relations. Chen (2013) argues that the new "middle peasant" is a transitional status rather than a stable class, and that in essence, these middle peasants are still small peasants.

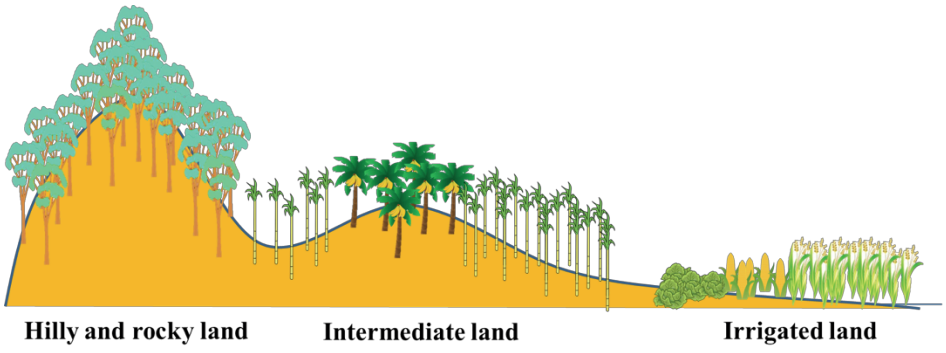
As a vital part of the agrarian transformation, the social relationships around rural land also changed over time. Such changes in the land property system in turn influenced the character and pattern of subsequent land circulation, and impacted on the evolution of rural capitalism. In order to gain a fuller understanding of the land conditions underlying the development of ITPs in Southern China, I will step back and address the larger-scale changes in land property relationships and institutions from a longer historical perspective.

Under the collective system in the 1950s, "state and collective ownership co-exist[ed]" (Zhang, Ma, and Xu 2004, 1052), and farmers were deprived of individual rights to private control and faced alienation. Sargeson (2013, 1066-1067) explained the collectivization in rural China in the 1950s as the "nationalization of the key factors of production – foremost of which were land and labour" supported by a centrally planned system established by the Chinese Communist Party. Similarly, Wen Tiejun, in his "cost transferring" theory, thought the rural land reform in the 1950s, which was claimed to alleviate the diseconomies of agriculture, actually

created a huge market for the machines produced in urban industrial sectors; this collectivization, he argues, was essentially meant to serve as primitive accumulation at the cost of the agricultural sector (Wen 2012).

In the 1980s, the HRS was implemented after the demise of communes (Rozelle and Li 1998). The "land-use rights [were] then contracted to peasant households on a largely egalitarian basis as an entitlement" (Zhang and Donaldson 2010, 464). According to an empirical study by Unger (2002, 107), land was mostly distributed based on the "size of each household". Due to the high population density in China, the plots awarded to HRS recipients were tiny, with an average of 1.37 mu farmland and 0.83 mu forestland (mountain land) per capita in Guangxi.[24] The plots distributed were often spatially separated, and had a wide array of qualities. Among the different plots of land awarded to each household, some could be irrigated with sufficient cultivation, while others could be rocky and hilly without much cultivation (see Figure 1.7 for a rough sketch of this issue). While risking the over-simplification of a real, complex situation, Figure 1.6 is still a useful depiction for the sole purpose of trying to emphasize the chequered pattern of plots' spatial distribution. This allocation of multiple plots per household was done for the sake of fairness (distribute all good lands and bad lands *equitably* among households), and would prove to be a key institutional basis for the rise of ITPs, where eucalyptus plantations would be focused on non-irrigated, relatively more rocky plots.

***Figure 1.7** Author's rough sketch of different plots of land allocated to household under HRS*



Under the HRS, what was contracted was user rights for most farmland and some forestland (a large part of forestland was not formally distributed during this reform, which will be discussed in Chapter 2 and Chapter 4). The farmland, forestland and waste/unutilized land (different from the urban construction land) were still owned, at least formally, by village collectives. There existed, then, a special land tenure system: the land was owned collectively, while the user rights (including the right to make production decisions independently and to control the products from the land) were in the hands of individual households (Zhang, Ma, and Xu 2004).

The HRS gave impetus to villagers' agricultural production at that time and significantly alleviated rural poverty (Spoor 2012, 187). But it also led to rural land fragmentation, which is believed by most commentators to "have a series of negative consequences, including low land productivity, constraints on accumulation and capital investment, obstacles to the application of new technology and in obtaining economies of scale, hindrance for labour migration and so on" (Ye 2015, 324).

As a response, land transfer (*Tudi Liuzhuan*) emerged. Zhang, Ma, and Xu (2004) observed, in the mid-1990s, the existence and rapid development of a rural land rental market, which partly broke a barrier to agrarian capitalism, namely, the non-tradability of rural land in China. Only land user rights can be circulated, and – with the exception of some pilot counties – the selling and buying of land remains forbidden (Zhang, Ma, and Xu 2004, 464). Since 2008, the Chinese state has released a series of policies which deepen land reform and promote land transfers (by greatly loosening and simplifying the procedures around user rights circulation). Currently, the circulation takes various forms based to regional differences, from land interchanges to land banks and shareholding; however, rules surrounding all of the circulations means that the main land-use cannot be changed (i.e. farm land should not be used as urban construction land).[25] Usually, the members of the community will have priority in contracting the "user rights" based on the principle of voluntariness. This reflects a further split in land property rights - user/management rights can be separated from villagers' contracting rights (Ye 2015). Such a change in the Chinese rural land system with the aim of promoting rural development has certainly tended to result in rural land concentration/consolidation, which then affects the villagers' livelihood strategies and agrarian

transformation, although the operational implications (i.e. who benefits and who loses in these situations) need to be much more clearly explained.

This rural land property system has sparked considerable debate within and outside China. As Sargeson (2004, 460-462) explained, liberal economists always criticized it as a major obstacle to fostering capitalism, and characterized it as an inefficient institution that hindered the transfer of land "from less efficient to more efficient producers". But critical scholars in agrarian political economy such as Zhang and Donaldson (2010), Huang, Yuan, and Peng (2012) and Ho and Spoor (2006) believed that it is the rural land system that prevented a large-scale full displacement of peasants in China and secured social stability. As Zhang and Donaldson (2010, 464) elaborated:

> Farmland has been the last frontier for the penetration of markets and commodity relations in agricultural production. Once this last piece falls into place, we have strong reason to expect that new actors will enter the agriculture sector and that new forms of production that transcend the boundary of family farms and rely on commodity relations for reproduction will emerge.

In this sense, the complex and uncertain social relationships around land in China - whether the land rental market will be further opened up, and whether the land property rights will be further privatized - are complicating the contours and trajectory of the ITP sector, as well as those of agrarian transformation.

Along with the conditions of land control, labour conditions also changed in rural China in the context of rural-urban migration. Millions of villagers – who are referred to as "peasant workers" (*nongmingong*) – left their villages and seek jobs in the cities. These people "generally take the heaviest and dirtiest jobs, are the most poorly paid, do not enjoy legal protections, and work without benefits or with reduced benefits" (Huang, Yuan, and Peng 2012, 141). The process of internal migration started in the 1980s (the de-collectivization reform period in China): "As noted before contemporary Chinese history, young men migrated out to work in the first wave in 1980s, followed by middle-aged men and then young women. Finally, the tide of migration involved almost all capable labourers in rural communities" (Ye et al. 2013, 1125). The number of "peasant workers" has now increased to considerable figures. According to a survey conducted by *National Bureau of Statistics of China* in 2016, there are 281.71

million migrant workers in China.[26] Among them, 169.34 million villagers are working away from home, who are described as "'*leave both the land and the village*' 离土又离乡"; and 112.37 million villagers are working near home, "dubbed '*leaving the land but not the village*' 离土不离乡." (Huang, Yuan, and Peng 2012, 141). Common to the two types of migrant workers is that, in both cases, the villagers *leave the land*.[27]

This internal migration – whether a forced survival option in the context of the current capitalist system (Bernstein 2010a), or an active livelihood choice by the villagers to "form twin legs and/or crutches" (Huang, Yuan, and Peng 2012, 164) – has significantly changed the labour-land relationship in rural China. Such changes directly impact on the development of capitalism in the countryside. The social process is two-way: the penetration of capitalism in rural areas influences the villagers' livelihood choices which then affects the process of internal migration.

Linking this land-labour situation in China back to the ITP sector, de-densification in rural China caused by internal migration fits the land-intensive-but-labour-saving/expelling character of ITPs. Following on the discussion in the previous paragraph, it can be surmised that the land-labour relationship and the ITP sector are mutually reinforcing, being dynamic and mutually changing, rather than being part of a one-way and static relationship. In this context, the land-labour conditions in Southern China are not only a cause of the massive expansion of the ITP sector, but are themselves also partly reshaped by the development of the ITP sector.

The emergence of the ITP sector in Southern China is also closely linked to the ecological environment in that region. The agronomic conditions in Guangxi are fit for the development of ITPs (this will be analysed in detail in Chapter 2). But just as nature partly influences the appropriate farming activities, the latter, as demonstrated in the case of Xinjiang (Spoor, Jiang, and Arsel 2013), in turn transform nature (Bernstein 2010a, 89). This issue is at the heart of political ecology. As mentioned above, the large-scale expansion of the ITP sector may have negative impacts on the local environment and ecological system, and thus, ecological trends may impact the trajectory of the ITP sector. This is an important process to observe, especially because forestry has always played an important role in development initiatives in post-1949 China. As elaborated by Liu (2010a):

> The "Great Leap Forward" movement (1958–1961) caused the loss of at least 10% of China's forests to fuel backyard furnaces for steel production.

> The "Learn from Dazhai in Agriculture" movement (1964–1978) transformed numerous landscapes and filled countless lakes, wetlands, and coastal areas for crop production with little regard for topographic, climatic, and socioeconomic conditions. Since the economic reform and open-door policy started in 1978, the massive production of many export goods has caused further resource depletion and environmental pollution.

Following the country's economic development, as well as some corresponding negative environmental problems, the Chinese state started to put increasing importance on ecology and the environment (Mol and Carter 2006). In 1994, sustainable development was proposed for the first time in the long-term plan for national socio-economic development in the *21st Century Agenda for China*. Since the 16th National Congress of the Communist Party of China (CPC) in 2002, "continuously increasing the state's capability to develop sustainably" has been set as one of the state's tasks in building "a better-off society."[28] Moreover, during the 18th National Congress of the Communist Party of China in 2012, "'Ecological Civilization' (restructuring the economy to achieve man-nature, production-consumption harmony) was included in the Constitution of the CPC" (He et al. 2013). As Zhang et al. (2013, 1034) conclude, although "greening China is far from an evolutionary process," environmental awareness in China is growing.

Following such trends in Chinese environment/ecological politics, one would expect more protests against the ITP sector because of the potential and actual environmental problems that industrial monocrop tree plantations bring. But while such protests have and are erupting in scattered pockets, they have not really grown into something consistent and coherent – as compared to, for example, the explosive conflicts around land expropriation across China. One thing to consider in relation to this is that the subsidy offered by the Chinese central government for reforestation (aimed at environmental protection) incentivizes the development of the ITP sector.[29] What is also relevant is the central state's recent promotion of "ecological civilization" (since 2012), which has a role to play in the change of the local state's attitudes and policies towards fast-growing tree species (as analysed in Chapter 3). All these issues make the trajectory of the ITP sector in Southern China full of contradictions.

In addition to the land-labour relationship and ecological issues, it is also important to consider the role of the Chinese state in a series of agrarian reforms that have, in turn, shaped the trajectory of the ITP sector. In

this context, land-use and rural tax policy reforms are important. As a vast country, China has a complicated administrative system. Between the central government and the township government, there are two or three more levels of administration. The politics and interactions between these levels are complex and dynamic, and are part of a context that is key to understanding the ITP sector's political economy.

During the Mao era, there was no significant local deviation from the central decisions within the collective system (So 2007). At that time, the "agriculture tax was based on the amount of cultivated land, estimated output and population," and the state "relied more on procurement rather than direct taxation" (Bernstein and Lü 2003, 39). Under this collective system, the state bought grain at procurement prices from production communes that had delivery quotas (Kennedy 2013, 1012-1013). The production communes then distributed the incomes. According to Unger (2002), land-use in rural villages was planned by the central government in Beijing, while "production teams" in each village owned the means of production and organized the production process.

Under the HRS reform, the farmers owned the user rights for the contracted land, procured by paying agriculture tax, and promised procurement quotas. Peasants could make decisions about what they produced. The HRS has been widely hailed as being partly responsible for the vibrant revival of the rural Chinese economy (Spoor 2007, 97). However, not everything went smoothly, nor was everyone in the villages satisfied. Among HRS' critics, Wen Tiejun thought that the system was a way for the state to use land user rights in exchange for releasing a series of governmental burdens into the rural area (such as social insurance and education fees, local government's public expenses), which should be the responsibility of the state (Wen 2012). Put another way, he was arguing that the state put resources into the peasants' right pocket, and took them from their left pocket.

During the HRS period, the central government "loosened its control over local affairs…to promote local incentives" (So 2007, 564). Within the context of such decentralization, the local government (especially at the county and township level) gained power through reallocating resources, (e.g. land, subsidized fertilizers) (Rozelle 1994). The fiscal systems of the central and local government were separated, underlying the decentralized system – something metaphorically called "serving meals to different din-

ers from different pots".[30] So (2007, 565) found that "this fiscal decentralization policy converted local states into financially independent entities that had the unprecedented right to dispose of the revenue they retained". Within this fiscal system, the local government levied heavy rural taxes and charges on villagers in order to supplement the insufficient collective income (Li 2003, Kennedy 2013, Lu 1997).[31]

Oi (1992) used the term "local state corporatism" to describe the local government's role as "a diversified business corporation." According to So (2007, 560), this decentralization led to a "split state": "one 'benign' centre and a 'predatory' local apparatus". Li (2007, 95) thought that decentralization was the strategy used by the central government to separate itself from local agents in order to find scapegoats to "blame policy failures on implementation details and front-line state workers".

In 1994, the central government enacted a financial reform, aimed at "recentralising control over revenue" (Oi et al. 2012, 653), and a tax standardization reform, purportedly aimed at reducing the peasants' burden. However, these reforms not only failed to achieve their goals, but actually increased the peasants' burden. According to Oi et al. (2012, 653) "the more revenue the centre attempted to take, the more cadres at the local levels sought to evade regulations to squeeze the farmers for more fees and surcharges".

There have been widespread complaints about the relatively miserable conditions of Chinese peasants, highlighted even further in relative terms by the dramatic improvement in the living conditions of the urban population. The Chinese farmers' problematic situation was vividly described by a Hubei farmer's spring couplet pasted in the Chinese new year of 2000: [You] "work hard for 300 days on the piece of farmland, and then at the end of the year still find the budget is deficit even with a harvest of about a thousand jin per mu."[32] (the number here is exaggerated to show a big harvest). Li Changping, the secretary of the Qipan County Party Committee in Hubei Province, elaborated on this situation in a letter to Premier Zhu Rongji in 2000, by stating that: "the peasants are really miserable, the countryside is really poor, and the agriculture is really in danger." His letter later led to the state's increased focus on the issues captured by the famous slogan coined by Wen Tiejun: "Three Rural Problems" (*Sannong wenti*) namely: peasantry, countryside, and agriculture).[33] As a result, the "Tax for fee" reform was introduced in 2002, abolishing all the local fees while reducing the agriculture tax.[34] Furthermore, in 2006 the agriculture tax was

abolished entirely.[35] After limiting the agriculture tax, the user rights truly became "free" for the peasants, and most townships became administrative shells with a limited ability to provide social services (Kennedy 2007, Oi et al. 2012). However, according to Kennedy (2013, 1021), since the 2002 tax reform, some local governments (township governments) have started to lease land to compensate their losses from taxes and fees.

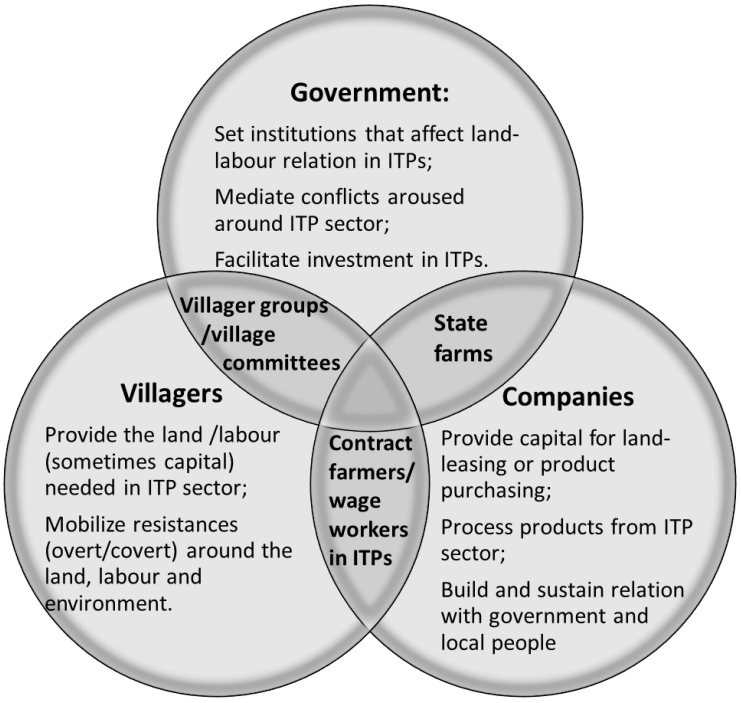
From decentralization to recentralization, the relationship between the central and the local state in China has changed along with rural politics. As mentioned above, the abolition of the rural tax triggered the local government to carry out the large-scale leasing of land. This had far-reaching implications for the subsequent boom of the ITP sector in Southern China, as can partly be seen from the fact that most transnational companies rented the land from the government during the time of rural tax reform and ITP sector expansion. Nevertheless, since the tax reform, villagers can also freely make decisions about land-use. They can grow sugarcane when they think sugarcane is profitable, or eucalyptus if they think that is more profitable instead. [36]

In short, land-use policy reforms and tax reforms are definitely not the sole determinants of the rise of the ITP sector in China. Instead, they share key factor status with the dynamics of the political economy of land and labour regimes, and with the ecological basis for growing industrial trees. As such, my research will examine these factors more closely and systematically, in order to gain a deep understanding of the causes, conditions, and consequences of the rise of ITPs in Southern China.

1.7 The key actors

Following the introduction of the structural and institutional context for the boom of the ITP sector, this section will take a closer look at the specific range of actors involved in the sector. As shown in Figure 1.8, there are three main categories of actors, namely: state, companies, and villagers.

Figure 1.8 *Key actors in the ITP sector in Southern China*



The state, as a critical player in the political arena, should never be ignored. Nevertheless, competing frameworks exist for understanding the state and its role in public policy, namely: "state-centric," "society-centric," and "interactive state-society" (Das 2007, Fox 1993). In the "state-centric" framework, the state is viewed as an independent political organization with autonomy (Weber 1965). This means that the state is beyond the social groups and does not necessarily reflect the interests and ideas of a certain class (Das 2007). In contrast to Weberians, Marxists (and some non-Marxists) generally view the state from a "society-centric" perspective. Marx thought that "the executive of the modern state is nothing but a committee for managing the common affairs of the whole bourgeoisie" (Marx and Engels 1906, 30). Such a definition implies that the state is an institution with no (or little) autonomy, but closely linked to the ruling class, as later interpreted by Lenin: "The state is an organ of class domi-

nation, an organ of oppression of one class by another; its aim is the creation of 'order' which legalizes and perpetuates this oppression by moderating the collisions between the classes" (Lenin 1978, 9). According to Lenin's elaboration, the state is dominated by the ruling class, and used as an instrument for the elites to exploit the subaltern classes. The Marxist interpretation of the state was later further refined by Gramsci. Gramsci used the term "hegemony" to describe the phenomenon when "a given group moves beyond a position of corporate existence and defence of its economic position and aspires to a position of leadership in the political and social arena" (Gramsci 1999, 20). Grounded in such a framework, Poulantzas further expanded the Marxist theory of the state from a social relationship to "a relationship of forces, or more precisely the material condensation of such a relationship among classes and class fractions"(Jessop 2011). This implies that the state is formulated not as an instrument for one certain class to exercise its political power, but as a "complex institutional ensemble" (Jessop 2011).

Both of these broad perspectives (state-centric and society-centric) can explain part of the political process, "but neither is complete" (Fox 1993, 11). Within the "state-centric" perspective, the autonomy and capacity of the state are overemphasized without a full consideration of class relations and social structure. In contrast, the "society-centric" framework tends to overlook the relative autonomy of the state. The "interactive state-society" is an alternative framework put forward by several scholars, including Fox (1993). This framework combines the strengths of the two dominant perspectives. In this interactive perspective, the state is understood as an apparatus that "comprises the ensemble of political, social, economic and coercive institutions that exercise 'public' authority in a given territory" (Fox 1993, 11-12). The "state action is the result of a reciprocal cause and effect relationship between changes in the balance of power within the state and shifts in the balance of power within society" (Fox 1993, 22). This framework reveals the contradictory functions of the modern state, namely, capital accumulation and political legitimacy (Fox 1993). In other words, the state does not only facilitate economic development (to guarantee its revenues and private capital accumulation) in the interest of dominant social classes, but also maintains social and political stability to legitimize its rule (Fox 1993). Using this framework, one can understand better the contradictions in state policies and politics, and the limits and possibilities of policy reforms.

Through this lens, I identify the dual policies of the Chinese central state. On the one hand, it provided preferential policies (such as subsidies) to support the development of the ITP sector, and thereby helped the push for capital accumulation – in the countryside in particular, and in the country more generally. On the other hand, the central state also set some controls on land market and labour mobility in order to preserve some idea of equity and rural-urban balance – partly done in order to help legitimize its development paradigm. There are tensions in all of these relationships, with the state in the middle.

At the state's local level (province, county or township level), where government policies are actually implemented, the contradictory tasks of the state become even more obvious. The local state sometimes mediates conflicts related to land, labour, and environment within the ITP sector, partly by limiting the development of ITPs, or even by fully removing them.[37] At other times and in other settings, the local government facilitates investments in the ITP sector. This is illustrated, for example, in the case of the Guangxi Forestry Group Company Limited, an important broker (especially in transnational land deals) specializing in leasing land for forestry investments in Guangxi, which is owned by the local government.

The distinct and even contradictory roles played by the state within the rise of the ITP sector are discussed in Chapter 3. Considering the complicated administrative system, the interactions among different levels of the state and between the state and society are taken into account.

The role of companies is relatively less complex than that of the state (though it is no less important). As an economic entity, the aim of companies is always to maximize profit. In addition to providing capital to lease land and buy commodities from farmers, and managing the value chain from production to circulation, companies also try to maintain their social legitimacy through building and sustaining relationships with the government and local communities. Foreign companies specialized in paper-pulp productions are involved in the Chinese ITP sector - why and how these overseas investors obtain land for the cultivation of eucalyptus is worth noting and will be addressed later in Chapter 4.

A related issue is the role of state farms, which are "created as state-owned and bureaucratically (sometimes even militarily) organized entities operating in agriculture and in rural areas" (Zhang 2010b, 336), with the original aim of addressing national food security.[38] The state farms used to

be part of the state and were later partly separated to be financially "independent" from the state after "the state farms commercialization reform" (Bank 1988). But the state farms were originally invested in by the state, and much of the land and other means of production still belong to the state. Thus, state farms are still closely linked to the state as organizations "for leading the way and for gauging the effect of national agricultural/rural policies" (Bank 1988, 55). In the ITP sector in Guangxi, the role of state farms becomes more complex. State farms (in the case of ITPs, the state forest farms) in Guangxi engage not only in producing eucalyptus trees, but also in processing and trading the products. Moreover, state forest farms in Guangxi have leased around 100 thousand hectares of their own land to Store Enso.[39] At the same time, the state forest farms also started to lease land from rural collectives to plant eucalyptus trees in order to fill their land shortage. This kind of large-scale, complex, and multilayered land leasing may bring new dynamics to the ITP sector in Guangxi.[40] This also shows how state farms seem to have found a niche in the context of the ITP sector, taking on multiple roles: directly engaging in their own production-to-trade business, supplying land to foreign ITP companies by leasing some of their own lands, and accumulating land themselves by leasing lands from smallholders (see Chapters 3 and 4). This role has far-reaching implications for the political economy of the ITP sector in Southern China.

In the context of ITP expansion, the role of villagers in Southern China is highly differentiated. Some of them get included and some are excluded, both passively and actively. Their diverse political-economic situations during the land-based changes are closely related to villagers' control over the means of production, production process and outputs, and their access to alternative livelihood sources. When villagers have limited/no control and limited/no access to alternatives, their livelihood choices are quite restricted. Irrespective of whether they are included in or excluded from the ITP sector, they have very little economic gain from it and even become more vulnerable. Contrarily, when villagers control abundant means of production and have access to alternative opportunities, they are able to make different choices, either to actively step out from the ITP sector or to incorporate into the sector on good terms. Some villagers have the capability and autonomy to engage with the ITP sector, but choose to be excluded on their own free will based on their own calculations. Those who want to get money quickly, for various reasons, tend to lease their

land to foreign investors or state-owned forest farms, in order to unlock the capital (land) tied up in the long rotation period (usually 5-6 years) and transfer the risks of cultivation. Some are willing to plant eucalyptus trees themselves, induced by the reforestation subsidy and potential value after harvest. As eucalyptus trees are a labour-saving crop that only need some care during the early planting/nurturing phase, it has become quite common in Guangxi for villagers to seek off-farm jobs in the town/urban area to earn wages, while planting eucalyptus trees for additional savings from the forestland that they were allocated during forestland reform. Perhaps even more commonly, 'peasant workers' in the cities have some of their plots in the village included in the ITP sector, since this requires only minimal labour intervention from them. For the latter, I would point out that many villagers had already moved to the cities before the rise of the ITP sector, abandoning some of their village plots. Some villagers gained control over the land from local or nearby village collectives via customary occupation or leasing and became owners of large-scale ITPs. For these villagers, planting eucalyptus trees becomes a relative 'bonus' – a windfall, even. These villagers' diverse livelihood changes under the rise of the ITP sector are discussed in Chapter 5.

The situation is not free of conflict. Southern China, especially Guangxi, has been the site of many recurring conflicts linked to the ITP sector, involving villagers, local governments, state farms, and foreign companies. But it is not a simple panorama of villagers resisting 'foreign land grabbers' or 'state land expropriation'. These political conflicts are far more varied in terms of their causes and character, reflecting what Margulis, McKeon, and Borras (2013) have argued more broadly. The issues in these conflicts range from illegal land occupation or land usurpation, to underpaid/unpaid land rent, underpaid labour in ITPs, and environmental issues. Some villagers resist the state and corporate enclosure of their lands, as in the large Behai special economic zone (SEZ) in Guangxi (see Figure 1.9).[41] In this Behai SEZ case, many villagers were expelled from their land in a process that is probably captured quite well by Harvey's notion of ABD (as described above). However, many of those protesting in the context of rural areas and within the ITP sector are mobilizing not to resist the ITP encroachment into their villages, but over the *terms* of such penetration and their incorporation into the sector. Many protests are against 'brokers' – such as state farms who get big cuts from land leases – and protesters mobilize partly to try to bypass the brokers.

Mobilizations and protests on environmental issues have also become an increasing basis of collective action.[42] There are also issues that are complicated by the involvement of actors external to the ITP sector – such as the sugarcane actors, who are also interested in the very lands being absorbed by the ITP sector. These varied forms of reactions from below and the respective reasons behind them are examined in Chapter 6.

***Figure 1.9** Villager protest against illegal land occupation in Hepu County, Guangxi*

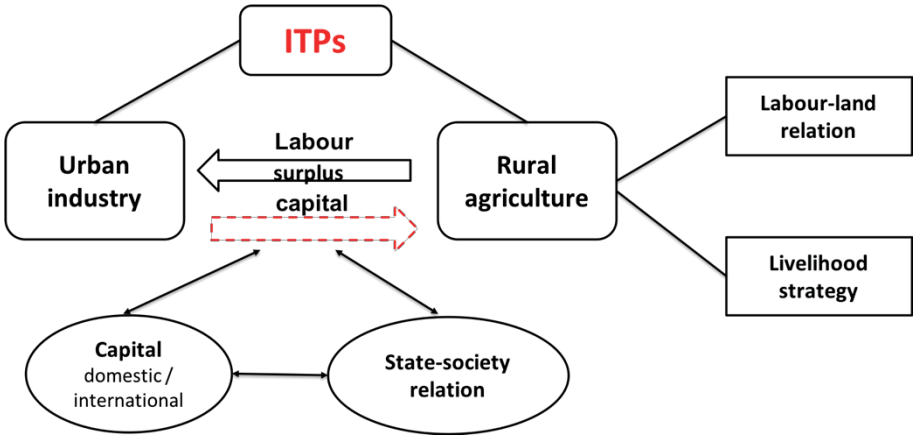
Source: http://www.boxun.com/news/gb/china/2010/09/201009192149.shtml, accessed on 11 January 2017

1.8 Analytical framework

The entry point discussion in this study is about land politics and relevant debates about accumulation and dispossession. It sets the location of my study in broader contemporary debates. But to answer my central research question, I needed to adopt a broader theoretical framework, broader than debates around accumulation and dispossession. For this purpose, and following the discussion above, this study adopts an agrarian political

economy analytical framework, supplemented with political ecology in order to answer the research questions explained earlier. Within this framework, the dynamics of capital accumulation – specifically, the role of capital (both domestic and international), state-society relations (the role of the state, the villagers and the rural institutions, and the societal interactions between them) – will be key concepts upon which a broader framework is constructed. Situated in these dynamics, the ITP sector is associated with both urban industry and rural agriculture due to the sector's agrarian characteristics (e.g. production mode and the usage of the outputs). As shown in Figure 1.10, two aspects of the problematique will be particularly emphasized, namely, the labour-land relation and the villagers' livelihood strategies. Within the crop boom, capital and labour flows between urban and rural areas, leading to changes in land-labour relations and to villagers' livelihoods. These changes are key to understanding the dynamics of accumulation and dispossession.

***Figure 1.10** Schema on how key concepts link to one another*



Agrarian political economy, as defined by Henry Bernstein (2010a, 1), is a method of investigating "the social relations and the dynamics of production and reproduction, property and power in agrarian formations and their process of change, both historical and contemporary". Agrarian political economy asks four fundamental questions in a dynamic and interrelated way: who owns what (social relations of property)? Who does what? Who gets what? And what do they do with the created wealth? But the

agrarian political economy framework has various competing strands and traditions, with different (often competing) perspectives/approaches in explaining the dynamics of land-labour relations and villagers' livelihood strategies with the capitalist penetration of the countryside. There are two main competing agrarian political economy perspectives that have dominated the field of critical agrarian studies: a Marxist perspective and a Chayanovian one. Each of these two competing perspectives features a wide range of varying branches.

Central to the Marxist perspective is class analysis. The perspective's main concept, social class, is determined by a social group's relationship to the means of production. Thus, the social relations of production play a key role in understanding rural politics. For the purposes of this dissertation, I will very briefly highlight here the key concepts of Marxist agrarian political economy. In the Marxist perspective, Lenin puts particular emphasis on issues related to the process of the social differentiation of the peasantry amid the penetration of capitalism into countryside. For Lenin, the unequal endowment of the peasants in the commodity economy – the land and technology they can get access to, the finance and labour they possess – led to their different positions in the process of capital accumulation. As capitalism penetrated the agriculture sector, the means of production and labour were commoditized, and the process of social differentiation gained momentum. The middle /family peasants were squeezed, and in the process became either rural bourgeoisie (minority) with increasing capital control, or rural proletariat (majority) as the "double free labour" (free of property and free to sell labour) (Lenin 1982, 130-131). Based on a study of Russia, Lenin concluded that such social differentiation is a permanent, polarizing, economic process (Lenin 1982). In other words, the peasantry would "completely split up into opposite groups"— rural bourgeoisies and rural proletariats (Lenin 1982, 130-137). For Marxists, this is a central element in the dynamics of social change in the countryside.

By comparison, the Chayanovians' contemporary perspective emphasizes the family farms that "are part of capitalist system", but which are not capitalist enterprises "grounded on a capital-labour relations" (Ploeg 2013, 15). Chayanov shared Lenin's conclusion about the social differentiation of the peasantry, but thought it was demographic, non-permanent, and cyclical. According to Chayanov, social differentiation can be explained by looking at the changing dynamics of the worker-consumer ratio

within a household – which are mainly caused by cyclical demographic changes rather than capital exploitation (Thorner 1998). In this sense, social differentiation is temporary and cyclical. In contrast to Lenin's prediction about the demise of middle peasants, Chayanov believed that family farms would survive even in agrarian capitalism. Family farms could hold greater competitive power than the large-scale capitalist farms because of their self-exploitation (Bernstein 2009, Ploeg 2013, 16). Chayanov further advocated for the combination of family farmers "within a self-governing cooperative structure," for the purposes of gaining scale in production, the trade of their produce, and to enable them to compete in the capitalist market (Shanin 2009, 98).

However, not all the Marxists have completely contrary views to Chayanov's. Before Chayanov, Karl Kautsky, a non-Leninist Marxist, argued that small peasants would be able to sustain and survive because of two advantages: working longer and consuming less (Kautsky 1988, 110). But like most Marxists, Kautsky still believed that small farms were much less efficient than large-scale capitalist farms. To enable small farms to share part of the agricultural production benefits that generated the superiority of large farms, Kautsky introduced the "cooperative" production form, which required small farms to unequally enter into large farms – that is, with a supply of household land and labour force in exchange for their access to credits, markets, and machines (Kautsky 1988, 120-126). Except for benefiting small farms, Kautsky also viewed such "cooperatives" as indispensable for capitalist farms, because this production form could supplement the large farms' shortage in labour power and their high input losses (Kautsky 1988, 147-166). In the study of the contemporary Chinese agrarian political economy, this Marxist–Chayanov debate has been a central reference point, and it will similarly be so in the present study.

Broadly informed by these two competing agrarian political economy tendencies, I can identify some relevant discussions in contemporary China that are relevant to this study. For example, Philip Huang claimed that the "future of Chinese agriculture lies not with large mechanized farms but with small capital and labour dual- intensifying family farms" (Huang 2011, 107). Zhang and Donaldson described current Chinese agriculture as an "agricultural involution", providing a particular scenario for most Chinese villages: "too many people farming too little land under harsh natural conditions had trapped his family in a life of poverty"

(Zhang and Donaldson 2010, 459). In other words, the villagers are assumed to be unable to maintain stable subsistence based on farming alone under such highly intensive labour-land conditions. However, Huang believed that "agriculture de-involution" (i.e. reducing the rural surplus labour) can be realized through a "hidden agriculture revolution" – namely, the "reduction of absolute size of the rural labour force" – fast urbanization with massive internal migration, and the restructuring of the Chinese diet with an increasing demand for "'capital and labour dual-intensifying' agricultural products" (Huang, Yuan, and Peng 2012, 162).

Following Chayanov, Van der Ploeg champions the notions of peasant farm efficiency and further re-grounded peasantry facing the global agrarian crisis of the 21st century, which is caused by the "industrialization of agriculture, the liberalization of food and agriculture markets and the rise of food empires" (Ploeg 2010a, Ploeg 2010b). For Van der Ploeg, there are five balances the peasant farms need to strike, namely, (i) balances between people and living nature, (ii) between production and reproduction, (iii) between internal and external resources, (iv) between autonomy and dependence, and (v) between scale and intensity (Ploeg 2013). For him, the idea that new peasantries, who are able to make full use of the "ecological capital" of land and other resources to produce "as much added value (or labour income) as possible under the given circumstance" (Ploeg 2013, 70) and maintain self-provisioning within the corporate food regime, are the hope to feed the world and solve the food crisis (Ploeg 2010b).

The competing theoretical perspectives in agrarian political economy, largely dominated by the Marxist and Chayanovian traditions, are both important theoretical frameworks for my study. I am not picking one over the other in a rigid way. Instead, my study is informed by theoretical insights from this long-running debate in agrarian political economy. I will revisit these traditions throughout this dissertation. For now, it is sufficient to deploy generic agrarian political economy concepts as discussed at the start of this section.

That being said, farming is not only a social-economic activity, but also a process of transformation, as it is being transformed by nature (Ploeg 2013). Such an interaction between nature and farming implies the importance of including ecological considerations in studying the ITP sector. Thus, political ecology should be used to supplement agrarian political economy. Interacting with the issue of ecology, this study slightly expands Bernstein's four questions: who owns what (including natural resources)?

Who does what and what are the (possible) environmental impacts? Who gets what (both economic and environmental benefits and costs)? And what do they do with it?

Political ecology originated from Kropotkin's study on human and environmental interactions, and gradually took shape with the development of hazard research and cultural ecology (Robbins 2012, 17-32). In the book *Land degradation and society,* Blaikie and Brookfield provided an explicit understanding of the political ecology surrounding land:

> The phrase 'political ecology' combines the concerns of ecology and a broadly defined political economy. Together this encompasses the constantly shifting dialectic between society and land-based resources, and also within classes and groups within society itself (Blaikie and Brookfield 1987, 17)

Following the above definition, political ecology is the approach to "link social and physical sciences to address environmental changes, conflicts and problems" with the same tools of political economy, namely: "analyses of social relations of production and questions of access and control over resource[s]" (Susan and Gezon 2005, 17). This means that the landscape and environment are viewed as socially constructed and interacting with various social actors within political ecology (Blaikie 1995).

Bernstein agrees that political ecology is an important framework in agrarian studies, with such considerations as the "ecological conditions, consequences and costs" of agrarian processes (Bernstein 2010b, 301). In agrarian political economy, the capitalist mode of production with economies of scale and the mechanization of the labour process is thought to be more productive (Woodhouse 2010). But this perspective on the efficiency of capitalist farms lacks a deeper analysis of the labour-land relation, namely: externalizing the environmental/social costs and neglecting the energy consumed in the capital-intensive mechanized agriculture (Weis 2010, Woodhouse 2010). Thus, agrarian political economists agree that the incorporation of political ecology can "help reduce the intellectual deficit of agrarian political economy" (Bernstein 2010b, 301). I take this as a key signpost in my dissertation.

In my study of the ITP sector, political ecology shows that the environmental impacts on local habitats are actually related to specific production systems. Industrial monoculture with intensive capital and energy inputs tends to lead to environmental degradation and ecological damage.

Meanwhile, such environmental "bads" are not distributed equally, but affect a few villagers more than others due to their more vulnerable status within the crop boom. The case of ITPs demonstrates the fact that ecology and the social relations of production and reproduction are interrelated; they shape each other. In this sense, political ecology and political economy are intertwined. Although political economy is the primary analytical framework, political ecology is an indispensable and critical component of the theoretical framework of my study.

1.9 Method

In this research, to understand the dynamics of the rise of the ITP sector in Southern China, the methodological approach that guides the data analysis and data collection is a *contextual, interactive and grounded* one. This approach is closely linked with the research questions and objectives.

Firstly, the analysis should be contextual, as argued by Sayer (2010, 8). In this dissertation, a context is more than a background in which social phenomenon take place, but a factor that leads to intended and unintended outcomes. Linking this with the study of land politics, trajectories of land-based changes are shaped by institutional and social structures. On the one hand, land acquisitions are, at least partly, hindered and/or supported by conditions - not by actors' choices but created under different land property rights and institutions. Thus, in certain contexts, land investors supposedly choose particular channels to gain and maintain their access to land. On the other hand, actors' agencies are mediated by contexts. Under distinct contexts, villagers are positioned differently with diverse access to resources - access which is related to their distinct attitudes, reactions, and corresponding outcomes in the course of land-based changes. When policies particularly favour large-scale investors, smallholders can easily go bankrupt under competition and are more likely to resist these changes. Conversely, if the policies aim to facilitate villagers in one way or another, some villagers might be able to find their niche and even gain profits from it. Thus, without a deep exploration of a certain context, actors' (re)actions and dynamics of the land-based changes cannot be fully understood.

Secondly, adding to the context-based approach, this study views social change as a dynamic and interactive process. Within the process, actors and their practices are not completely independent, but are continuously

shaping and are shaped by each other in one way or another. In this research about changes in land-use and land control, two groups of interacted relations are focused on, namely, (i) land, labour and livelihood, and (ii) state and society. Within agrarian transformation, land, labour and livelihood are three interweaving elements. Land is both a vital means of production that the rural population works on, and an important livelihood resource that rural households gain income from. Different forms of land control are closely linked to the ways in which production is organized and profits are distributed. Meanwhile, labour conditions are a key factor that affect both land-use and livelihood choices. Furthermore, livelihood change within a rural household is always related to a shift in the distribution of labour, land-use and/or land control. Thus, land-use and land control, labour, and livelihood are inseparably associated with each other, in a relational and dynamic way. Any change in one element is bound to have implications for the other two, which might in turn result in further changes in the former element. As for the state-society interaction, as already discussed in earlier sections, state and societal forces mutually shape each other and contribute to a further complicated trajectory of land-based changes.

Thirdly, building on the previous two approaches, the analysis in this research is simultaneously conducted in a grounded manner. This means that the understanding of social dynamics is not theory-laden, but based on a deep exploration of the dynamics at play (Sayer 2010, 50). In other words, this dissertation employs grounded theory, which is "simply the discovery of emerging *patterns* in data" and "the generation of theories from data" (Walsh et al. 2015, 593). Applying this grounded lens to studies of land politics can contribute to a more nuanced understanding (typology) which reflects reality and moves beyond the over-simplified dichotomies in current literature. To give an example, most studies focus on large-scale foreign corporate-dominated land grabs and portray villagers as victims and resisters. This reflects that scale, the identities of investors, and a simplified view of villagers tend to take precedence in analyses of land grabbing. However, this can be problematic and even misleading because, as will be analysed in Chapters 5 and 6, in reality, (i) small-scale land grabs are not necessarily less significant than large-scale ones; (ii) local actor-dominated land grabs also exist and sometimes might have more serious adverse impacts on local communities; and (iii) within land-based changes,

villagers are not homogenously affected, but are situated in different positions, which results in their diverse attitudes and reactions. In this sense, instead of sticking to a previous analytical framework rigidly, this study tries to link the existing theories to realties.

Aligned with the contextual, interactive, and grounded approach, this study requires different types of data to answer its central research question, as shown in Table 1.3. Overall, this includes: agronomic data about Guangxi, information concerning the ITP sector, data on changes in land-labour relations, information on changes in villagers' livelihoods, and information on broader political-economic/ecologic changes in the Guangxi villages.

***Table 1.3** Required data, split by sub-question*

Question	*Sub-question*	*Data/information needed*
Q1: Why have ITPs expanded so quickly and massively in Southern China?	Q1(a): agronomic conditions for growing eucalyptus trees	Climate information in Guangxi, soil, water, and other basic agronomic data, including the technological aspects of growing eucalyptus trees.
	Q1(b): the 'demand' for eucalyptus sector products	Data on the Chinese consumption, export and import of the products from the ITP sector.
	Q1(c): institutional conditions of land and labour in rural China	Data on relevant laws and regulations, including the rural land property system, internal migration, and rural tax system.
	Q1(d): finance capital	Data on ITP sector investments and the sources of these investments: foreign, state, domestic corporations, state farms, and villagers.
Q2: What are the roles played by the state and corporations within the rise of the ITP sector	Q2(a): How did the state (central and local) intervene in the eucalyptus tree sector boom?	Data on laws and policies: (central, provincial, local) for land control and land-use. Data and information on the range of state actors (central, provincial and local), how they perceive the ITP sector, and what they did or did not do to promote the sector. Data on actual interactions within and between state and societal groups around the ITP sector – how this was shaped by ITP sector interests, and how the ITP sector was shaped by such dynamics.
	Q2(b): What is the role of corporations underlying the boom in the eucalyptus tree sector?	Data and information on foreign companies' general information (e.g. the scale of their ITPs, the capital involved, products, main markets), their motivations for land investments in China, the mechanisms of their land control under the Chinese land regime, and possible conflicts involving the mechanisms.

Q3: What are the implications of ITPs on rural villagers in Southern China?	Q3(a): What are the implications of ITPs on rural villagers?	Data on rural household income changes underlying the development of ITPs, and data about the households' livelihood choices, as well as the changes in agrarian structures in villages; hectare data on ITPs.
	Q3(b): How did the villagers respond to the rise of the ITP sector?	Data and information on villagers: how do they perceive the ITP sector, what are the key lines of convergence and divergence in their interests. (the issues that unite or divide various groups), what did or did they not do to help facilitate or hinder the rapid growth of the ITP sector.
		Data and information on conflicts around ITPs and their mechanisms (including the causes, actors, impacts).

To study the impacts of ITP expansion, as summarized in Table 1.4, I require data about the hectares of ITPs (mainly eucalyptus) and other agriculture crops (such as sugarcane and others), the labour, land, and capital invested by households in the ITP sector, and the household incomes derived from ITPs (and in relation to other sources of income by the households outside ITPs). Data on villagers' livelihood change, as well as changes in the agrarian structure cannot be neglected in this study. Livelihoods here includes the amount of land controlled by the households, their income sources (both from farm and off-farm jobs), and labour conditions.

The methods and the objectives of the data collection were chosen based on the "purpose of the question, the resources available and the skills of the researcher" (Kumar 1999, 105), as well as the analysis by the key actors above. The information about the natural conditions of the site (mainly about climate and soil) and the agronomy of industrial tree crops were mainly drawn from secondary materials, including internet news and reports, and published scientific papers. In order to increase the validity and reliability of the data, I conducted interviews with specialists on eucalyptus trees in Guangxi to supplement the secondary data. Data on laws and regulations around the ITP sector were gathered from official state publications, as well as from interviews with key informants at the various levels of state bureaucracy. I interviewed relevant staff in relevant government offices at the province and city levels, as well as administrative staff at county and township levels.

***Table 1.4** Data collection methods*

Type of data	*Data collection methods*	*Data collection targets*
Natural conditions of the site and the agronomy of ITPs	Secondary sources (supplemented with interviews in the field)	Guangxi and ITPs
Laws and regulations	Semi-structured interviews combined with secondary sources	Government
Investment and total output value in the ITP sector	Semi-structured interviews combined with secondary sources	Government, companies, and villagers
Land-use and land control change	Semi-structured interviews supplemented with focus group discussions and secondary sources	Government, companies, and villagers
Conflicts around the ITP sector	Secondary sources combined with semi-structured interviews	Villagers, companies, and government
Land-labour input of rural households into the ITP sector	Questionnaires combined with focus group discussions	Villagers
Villagers' livelihood strategies	Questionnaires and semi-structured interviews combined with focus group discussions	Villagers

Information about investments, total output value, and land-use change for the ITP sector was mainly collected via interviews with key actors: government officials, companies, and villagers. Among all the governmental departments and offices, the Forestry Department at both provincial and county levels (which are in charge of business in ITPs) were my targets for the interviews. Data about companies (especially the big transnational companies and state farms) was not easy to acquire; although this data can sometimes be obtained from websites, their reliability and validity are relatively low. I thus gathered the information through villagers, via household surveys and focus group discussions, from which I then extrapolated possible costs and benefits.

Conflicts in and around the ITP sector are relatively sensitive in China, especially in Guangxi. I searched for relevant news, reports, and academic papers in advance. Then I went into the field to interview key actors based on the information from these secondary sources. I gathered information from villagers and government officials by using largely open-ended questions, such as: "Did you meet any challenges during work in the ITP sector? If so, what kind?"

For data on land-labour inputs into the ITP sector, the villagers' livelihood strategies, and their perceptions of the ITP sectors, I conducted a household survey in villages in Guangxi. The sample I chose and the questionnaire I designed for this purpose are described and explained in detail below.

The data described above contains both "soft data" (the texts) and "hard data" (the numbers). In this sense, my strategy is to combine qualitative and quantitative approaches. According to Neuman (1991), researchers conducting qualitative analyses "reflect on process and develop new ideas" as they gather data, and qualitative data is able to provide an in-depth understanding of the research problem. However, quantitative data can provide stronger and more direct evidence and assist in testing the validity of the arguments developed by qualitative methods. (Hesse-Biber 2010). Thus, qualitative and quantitative approaches can reinforce each other's strengths, bringing me closer to answering this study's central research question. However, this study is primarily a qualitative political economy/political ecology study, and the *quantitative method will be used as a supplementary method.*

In short, this research applies a qualitative approach, supplemented with a quantitative approach, to analyse data from both primary and secondary sources. The secondary sources here include official government documents, internet news and reports, books and scientific papers, various other documents collected through interviews, papers, books and newspapers about the agronomy of industrial tree crops, the agronomic conditions of Guangxi, investment data, land and water use changes, conflict dynamics in and around the ITP sector, and contracts between villagers, state farms and companies. These sources are obtained by conducting internet and library searches and saving/copying documents received from interviewees. Compared to secondary sources, primary sources are relatively hard to obtain. In this research, I conducted 201 semi-structured interviews with key informants (including state actors, corporate actors and villagers) and three focus group discussions to collect primary data in four fieldwork trips in Guangxi.[43] In the next section I will introduce these four fieldwork trips in Guangxi.

1.10 Fieldwork in Guangxi

For this research, I conducted face-to-face, semi-structured interviews and focus group discussions (FGDs). I chose semi-structured interviews to interview staff in government and company offices because this method is thought to work well when dealing with "managers, bureaucrats and elite members of a community – people who are accustomed to [an] efficient use of their time" (Bernard 2000, 191). The questions for the different interviewees are listed in Appendices 1, 2 and 3.

To collect the data about livelihood strategies and the land-labour relations of the villagers, I conducted in-depth interviews with the questionnaires as a checklist. I chose this method partly because questionnaires have no interviewer bias, are easier to control, and convenient for analysis (Bernard 2000, 231-233). Questionnaires still have the danger of deviating from the original targets if the questions are not properly designed and will bring limited results (no surprise) in a close-end survey. I therefore carefully designed the questionnaire to reduce these disadvantages. Furthermore, I combined the questionnaires with interviews to deepen my understanding of villagers' answers and to investigate the information hidden behind the numbers (e.g. motivations for land-use change). The questionnaire focused on five aspects: general household situation, land resource management, labour distribution and changes, income composition and changes, and livelihood strategy changes. Details of the questionnaire can be found in Appendix 4.

The general information about my four fieldwork trips to Guangxi during the spring of 2014, 2015, 2016, and 2017 is elaborated below.

1.10.1 Fieldwork in 2014

In March 2014, I conducted the preliminary fieldwork in Guangxi, mainly in the city and countryside of Nanning. Before that, I only had only been to Guangxi once as a tourist with my mother. During this first fieldwork trip I saw real eucalyptus trees, rather than just pictures, for the first time. During this fieldwork, I interviewed two professors at the Forestry School of Guangxi University, three officials from the Forestry Department of Guangxi, one staff member from Gaofeng state-owned Forest Farm, APP and Stora Enso, respectively, as well as two villagers from Chengxiang County of Nanning. I also conducted a telephone interview with a leader of a cooperative which is involved in the ITP sector.

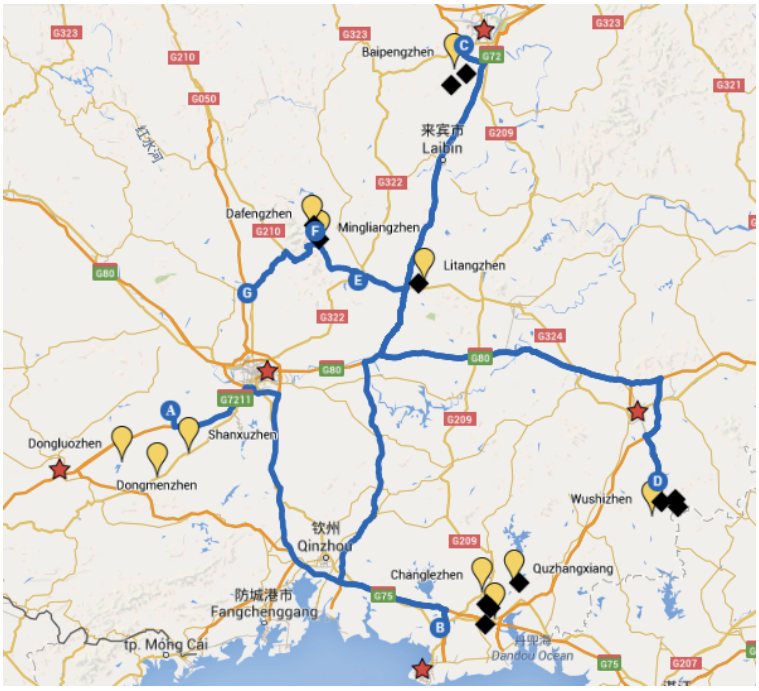
1.10.2 Fieldwork in 2015

During this fieldwork trip, I spent two months in Guangxi and interviewed various actors at different sites, as shown in Figure 1.11 and Table 1.5. I conducted the in-depth interviews and focus group discussions using snowball sampling.[44] I conducted 63 interviews and three focus group discussions (one in Chongzuo County, one in Hepu County and one in Wuming County).

***Table 1.5** General information on visited sites in 2015[45]*

City	*County*	*Township*	*Village*	*Note*
Chongzuo	Fusui	Dongmenzhen Dongluozhen Shanxuzhen		Dominated by sugarcane production
Beihai	Hepu	Zhakouzhen	F Cun	Stora Enso invested
		Quzhangxiang	J Cun	Stora Enso invested, near the reservoir, original APP invested
		Changlezhen	X Cun	Stora Enso invested
			D Cun	Stora Enso invested
Liuzhou	Liujiang	Baipengzhen	G Cun	Independent planters
			T Cun	Independent planters
Yulin	Luchuan	Wushizhen	S Cun	Independent planters
			A Cun	State farm (Gaofeng) invested, APP invested
			L Cun	Independent planters
Nanning	Binyang	Litangzhen	S Cun	Independent planters
	Shanglin	Mingliangzhen	B Cun	Ecotourism as a promoted sector
		Dafengzhen	Y Cun	Ecotourism as a promoted sector
	Wuming	Shuangqiaozhen		The industry park for timber processing

***Figure 1.11** Visited sites in 2015*



The fieldwork in Chongzuo (from 2 March to 14 March 2015) was conducted with three colleagues from the China Agricultural University (Liu Juan, Wang Chunyu and Hu Zhen). From 15 March to 25 April, I went to six different counties in the southern part of Guangxi where there are distinct dynamics within the development of the ITP sector (see Table 1.5). The actors interviewed during this trip are summarized in Table 1.6.

***Table 1.6** General information on informants during fieldwork in 2015*

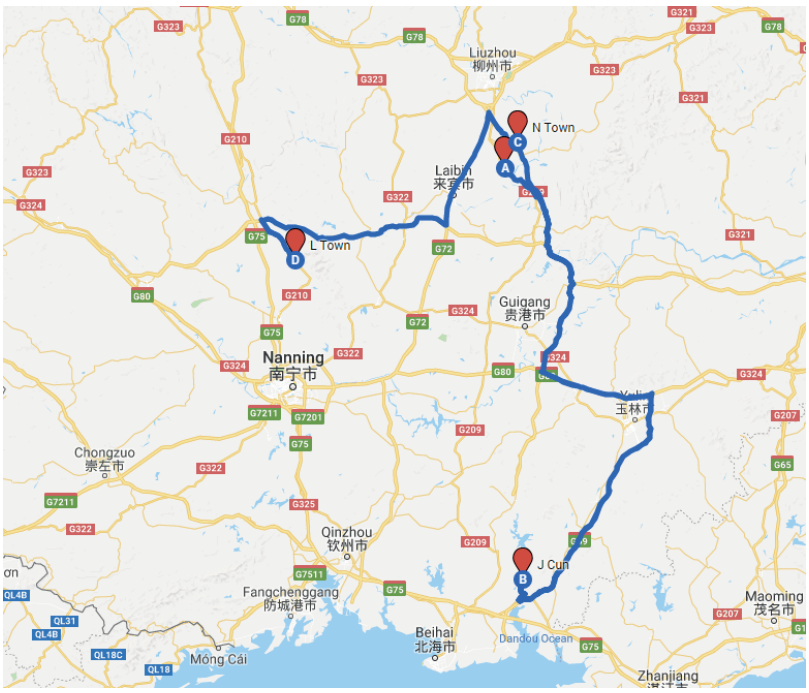
Type		*Details*
State	Forestry departments	Provincial level; County level (in 4 counties); Township level (in 3 towns)
	State farms	Four at provincial level; One at county level

Companies	Foreign companies	Stora Enso
	Sugarcane factories	NanHua;
		Dongya
		One in Shanxu;
	Timber processing sites	Two in Hepu (preliminary);
		And one industrial park in Wuming (both preliminary and further processing)
		Two that leased land to Stora Enso;
		One that leased forestland to private investors;
	Non-eucalyptus growers	12 without forestland;
		Two that are short of labour;
		Five with forestland but for the cultivation of other crops
Villagers	Employed by Stora Enso/large growers	Protecting the plantations;
		Log the trees (temporarily);
		Security (those have social relations)
	Independent eucalyptus growers	13 small-scale
		Nine large-scale (leasing land): including three owning timber preliminary processing mills and three working as middlemen
	Middlemen	Three middlemen: cut trees and sell them
	Migrant workers	Four migrant workers: including two who grow trees at home;
		Several used to be migrant workers: including one who used to go the Ghana to do gold mining);
		Several doing off-farm jobs in the near township/ county centres.

1.10.3 Fieldwork in 2016

Based on the two previous fieldwork trips, during the spring of 2016 I conducted the in-depth interviews in the four villages (see Figure 1.12) with the questionnaires (see Appendix 4) as a checklist to guide the information collection using snowball sampling. However, my questions during the interviews were not limited to the questions on the questionnaire, I also asked other questions in response to the information provided by the interviewees (e.g. if the villager told me that he/she plans to change land-use from eucalyptus trees to sugarcane, I then asked them why and their basis/ considerations for this land-use change). The location and the general situation of these villages are shown in Figure 1.12 and Table 1.7.

Figure 1.12 *Fieldwork visited sites in 2016*



In M village, I lived with Ms Zhen's parents who lived in one of my targeted village groups (E Village Group). Ms Zhen is my collage mate and one of my friends. In the first week, I talked to the local people by myself but made little progress at first for two reasons. Firstly, I found it is very difficult to build trust in the village, especially as I am not able to speak the dialect (later I learnt to partially understand the interviewees, but I still cannot speak the local language). The villagers there have very bad experiences of talking to strangers about livelihood issues: some of these strangers defrauded the villagers of their money; even worse, some trafficked their children. Secondly, the villagers were quite busy during my fieldwork, because February is a busy season for them due to the sugarcane harvest - if they did not cut down the sugarcane before the end of February, the sugar factory in town would refuse to buy it from them. I therefore decided to hire my friend's father (Mr Zhen) as my assistant to introduce me to the people I wanted to interview and translate for me when necessary (i.e. when interviewing old people who cannot speak Mandarin). This strategy worked quite well. Mr Zhen is a farmer and he planted

eucalyptus trees and sugarcane on the forestland controlled by his households. He used to be businessman selling chemical fertilizer in the villages around and became familiar with villagers in other village groups. Through him, I quickly gained access to independent planters, non-planters, middlemen, and businessmen from seeding cultivation, transportation and processing businesses.

In J village, I lived in one of the village groups with Ms Wei, a middle-aged woman whom I got to knew during my previous fieldwork in March 2015. Ms Wei is women's director in J village. I employed her as my research assistant in this village. We did interviews in all the six village groups there.

I also went to N town, as I had heard from the family I lived with in M village that there are several big individual entrepreneurs (or "big bosses" as they called by local villagers) involved in land leasing and the eucalyptus tree business. Introduced by my friend Ms Zhen, I stayed with the family of one of her distant relatives in a village near town. At first, I hesitated to hire Ms Zhen's relative (a distance aunt, Ms Ma) to be my assistant in this village, as she cannot speak fluent Mandarin and sometimes she misunderstood my words. On the other hand, I observed that she has good social skills and some connection with villagers and some entrepreneurs in town, because she likes walking around and chatting with people during her free time. I therefore decided to hire to her as an "ice-breaker". During my interviews, she helped me to get access to the interviewees I wanted to interview (I noticed that although she herself could not fully understand my work and its aim, and is a normal farmer rather than a village cadre/elite, she could always get my targeted interviewees to say "yes"). I then explained my research aim and asked questions myself.

In L town, I planned to live in the village with a household introduced to me by Ms Zhen. Unfortunately, the host family refused me. Considering that this was a very interesting field site for me, I decided to live in the hotel in town. Luckily, the targeted villages were quite near the town. I employed a villager, Mr Liang, who collects electricity bills in the nearby villages for the local Electricity Company, to be my assistant. We worked on the villages where the Gaofeng state-owned forest farm or APP had leased land and planted eucalyptus trees.

***Table 1.7** General information on visited villages in 2016*

	M Village	*J Village*	*L Town*	*N Town*
Reason to choose	I interviewed my friend, Ms Zhen, who is originally from this village. She told me almost every household plants eucalyptus trees in her village for additional income. The villages burnt the forestland or pulled up the originally cultivated sugarcane to grow eucalyptus trees. Furthermore, this county is an important production site of sugarcane in China, with an annual output of 200000 tonnes (equalling to more than 10 tonnes per capita)[46]. Meanwhile the county government introduced two big paper-pulp companies in 2006. The dynamic between sugarcane and eucalyptus trees is very interesting here.	According to the village head, the village has 8000 mu of collectively-owned forestland. Of that, 7000 mu was leased to Stora Enso (Field notes, 18 March 2015).[47] One village cadre told me her land was originally leased to APP in 1998. But APP gave up after a big typhoon and released the land to Stora Enso(Field notes, 18 March 2015). The dynamic between Sotra Enso and APP is very interesting here.	I interviewed a staff member of the town government's Forestry Department. He told me there is a big timber processing industrial park in Wuming County. Both APP and Gaofeng state-owned forest farms plant eucalyptus trees in town with the land directly leased from villagers/ village collectives.(Field notes, 13 April 2015.) State-owned farm+ APP	When I interviewed the villagers in M village, I found out that there are several individual entrepreneurs (both natives and outsiders) who lease land from collectives or villagers in N Town (Field notes, 1 March 2016). This is very different from the situation in M village, where the land and eucalyptus trees are still under the control of the villagers. Individual entrepreneurs
Information	Population: around 6000 nine village groups	Population:1450; number of households: 294[48] six village groups		
Type	Individual planter dominated	Foreign company dominated	State-owned farm and foreign company dominated	Individual entrepreneur dominated

During this fieldwork, I completed a total of 106 in-depth interviews in these four villages. The general information about the interviewees is summarized in Table 1.8.

Table 1.8 *Summary of the interviewees in 2016*

		M Village	*J Village*	*L Town*	*N Town*	*Total*
Number of interviews		38	25	16	36	115
The number of complete interviews[49]		31	25	16	34	106
Gender	Male	30	12	9	28	79
	%	97%	48%	56%	82%	75%
	Female	1	13	7	6	27
	%	3%	52%	44%	18%	25%
Planter	Owning the land (farmland/forestland)	26	3	10	28	67
	Leasing the land from individual villagers	0	0	0	2	2
	Leasing the land from collective	0	0	5	2	7
	Total	26	3	15	32	76
%		84%	12%	94%	94%	72%
non-planter		5	22	1	2	30
%		16%	88%	6%	6%	28%

Based on the data collected from these interviews, the land-labour conditions of these sites are distinct.

In M village, land (both forestland and farmland) was distributed to rural households in the 1980s under the HRS reform based on the unit of production team (which later became village group). Because each production team has different land conditions, the distribution is not equal among the villages. Some households own 30 mu farmland, while some only own 3 mu.

As land is relatively abundant in this village, the scale of the migrant population is the smallest of the four sites I visited. The age of the migrants is concentrated in the 18 to 40 age bracket. These migrants claimed that they might choose to return to their villages when their parents get old or their children start going to school.

In J village, most of the farmland was acquired to build a reservoir in 1960s. The forestland ownership in this village is in chaos. A part of the forestland was distributed to individual household under the HRS, without any clear boundaries. When collective forestland was leased to APP/Stora Enso in the late 1990s and early 2000s, those land plots which had already been distributed were also included without any enquiry into their ownership. Later, due to grievances/ resistance from below, part of the forestland was returned to the villagers, most of whom later leased to individual entrepreneurs or to Stora Enso.

As land is at a shortage in this village, most men have migrated, either permanently or temporarily, to towns or urban areas to make a living. Generally speaking, only the old, the women, the young and the sick are left at home.

In the villages I visited in L town, farmland was distributed to rural households under the HRS reform. The condition of the forestland varies among different village groups: some do not have any, and some own hundreds of mu. Except for a very small part of the forestland that was distributed to households under the HRS, most of the forestland remains in the hands of the collective, which leased it to APP or state-owned farms in the early 2000s.

In this town, the areas where I did my fieldwork were quite near the town centre (30 mins at the most). Thus, working/doing business in the town centre on working days and returning to the village every night was an option for villagers. However, as was the case in the previous village, the old, the women, the young and the sick were usually left behind.

In the villages I visited in N town, farmland was distributed to rural households under the HRS reform, [50] while the forestland was not. In the villages I visited, the principle of first occupation is commonly the agreed term of forestland ownership. However, very few people realized the value of forestland before the rise in importance of eucalyptus trees. Thus, the households with more labourers and/or better access to information about the expansion of eucalyptus trees (the elites in the village) usually

own more forestland. As in the previous site, the villages I visited are relatively near town, so quite a large group of villagers earn their income in the town.

In terms of land and labour conditions, the trajectories in the development of the ITP sector in these four sites are also divergent. In M village, except for a very small group of villagers who started to plant eucalyptus trees in the late 1990s and early 2000s, most of the villages started their cultivation after 2010 due to the decrease in the price of sugarcane and the increase in the eucalyptus tree price. These villagers thus changed their land-use from sugarcane to eucalyptus trees. However, several interviewees expressed their willingness to revert the land-use back to sugarcane or fruit trees because of the decrease in the eucalyptus tree price this year (almost halved).

In J village, foreign companies are the main investors in the ITP sector. APP leased the land from the collective in 1997 with a 20-year contract. However, APP only paid the rent for three years and gave up their ITPs there due to the high management costs caused by frequent typhoons and numerous tree thieves. The land was then re-leased to Stora Enso or individual entrepreneurs. Stora Enso leased land from the collective in 2000. Because of the chaos in the land ownership and leasing contracts, some land plots were returned to villagers later, as mentioned above in M village. Following the introduction of foreign companies, a few villagers also started in the eucalyptus tree business by leasing land or cooperating with foreign companies in and near this village.

In 2000, Gaofeng Sate farm came to lease land to plant eucalyptus trees in some villages in L town. However, the person who actually controlled the land and outputs was an employee of Gaofeng Sate farm. These eucalyptus trees were planted, cut, and sold in exactly same way as was done by individual entrepreneurs.

Meanwhile, APP has also leased land and built ITPs in this village since 2003. In some contrast to Gaofeng state farm, part of the outputs (the small branches) were transported to the APP factory in Qinzhou city, while the big branches were sold to the timber processing industrial park in Wuming County. In addition, a few villagers also followed this trend and started in the eucalyptus tree business.

In the villages of N town, except for a very few investments in eucalyptus trees in the early 2000s, the rise of the ITP sector in the villages

started mainly in 2010, a year which is associated with the price drop in sugarcane. Individual investors who are involved in the ITP business are usually those who had already accumulated capital from other off-farm sectors (e.g. supermarket, trade).

1.10.4 Fieldwork in 2017

In the March of 2017, I conducted fieldwork in Guangxi and Yunnan provinces with Hua Li from Taiyuan University of Technology. During the fieldwork, I conducted in-depth interviews with villagers in Fusui County who either plant or do not plant eucalyptus trees, employees of sugar companies in both Guangxi and Yunnan, a manager of a private company engaged in sugarcane cultivation, an employee of Stora Enso, Vietnamese migrant sugarcane cutters, and state actors. The first-hand data collected via interviews and observations and the second-hand documents provided by respondents complemented the information on rural transformation and the expansion of eucalyptus trees in relation to other boom crops in the region.

1.11 Organization of this study

Guided by the methodological and theoretical discussions in this chapter, and in line with the research questions of this study, the following chapters provide further empirical investigations with a focus on land, labour, livelihood strategies, and the state-society interaction around the ITP sector in Southern China.

I begin in Chapter 2 with an overview of the rise of the ITP sector in Guangxi. I explore the dynamics of the development of the ITP sector in China through a political economy lens, with the focus on four factors, namely, the domestic demand for the products, the agronomic conditions in Southern China, the institutional conditions of land control and labour in rural China, and the financial capital from both domestic and international sources.

In Chapter 3, I analyse the role of the state throughout the expansion of the ITP sector in Guangxi, using the "interactive state-society" framework. I find that the actions/reactions of the state at different levels - especially at the provincial and local levels - towards the ITP sector can vary in a relational and dynamic way. In line with Fox (1993), I argue that the

state's role is to facilitate capital accumulation while maintaining political legitimacy.

In Chapter 4, I zoom in on the corporations, especially foreign land investments in Southern China. I explore the driving forces and the mechanisms of APP's and Stora Enso's land control for the cultivation of eucalyptus in Guangxi. I argue that foreign investors acquired land inside China, which implies that the role of China in global land politics is not limited to the country-of-origin of numerous foreign land investors and a major site of agro-product consumption, but is also a destination for foreign land investments in a crop boom.

In Chapter 5, I examine the impacts of the rise of the ITP sector on villagers' livelihoods in Guangxi. I focus on their adaptive strategies in response to the massive changes in land-use and land control due to the development of the ITP sector in Guangxi. I demonstrate that villagers are not necessarily victims, but at times can benefit and (a few villagers) even dispossess others within the boom.

In Chapter 6, I discuss the political reactions from the affected villagers, tracking how and why various social groups affected by the expansion of the ITP sector respond differently. I focus on the dynamics of the inclusion and exclusion of villagers to the ITP sector. In this chapter, I challenge the dichotomy of "inclusion versus exclusion" and develop a more nuanced typology, including passive inclusion, active inclusion, passive exclusion, and active exclusion.

Notes

[1] In other words, land politics includes a bundle of policies/actions from above and a series of initiatives/reactions from below that are associated with land entitlement and the direction of changes in land control and land use. These actions from above and from below are neither independent nor do they emerge in sequence, but dynamically (re)shape each other. They are around land-based change, but not always land-centric (e.g. about labour and ecology).

[2] For details about the politics of flexing crops, see Borras et al (2016); for an analysis of flexing of soybeans, palm oil and sugarcane see Oliveira and Schneider (2016), Alonso-Fradejas et al (2016), and McKay et al. (2016) respectively.

[3] In China, due to the specific land system which will be introduced in the following parts, rural land cannot be sold, but (the user rights) can be contracted. Thus, in the context of China, land transfer is what has been commonly discussed by Chinese scholars (Huang and Wang 2008).

[4] These domestic land grabs have not only occurred in rural areas, but also in urba n areas, as commonly shown in current media and activism, such as: https://www.amnesty.org/en/latest/news/2011/12/china-must-end-land-grabs-amid-protests-over-death-custody/, accessed on 16 January 2018.

[5] Under the current land system in China, rural land is owned by the collectives, while the contracting rights are entitled to villagers based on their rural identity (under the Hukou System), and the management rights belong to the actual users of the land. Thus, what can be transferred to investors is the user right of the land rather than full ownership. This will be elaborated on in parts 1.6 and 2.5.

[6] In this study, the term of "villagers" is used on purpose to refer to socially differentiated rural residents. Villagers are not the same as the "peasants" who, as defined by Chayanov, only conduct subsistence farming. Many villagers do off-farm work. Meanwhile, they are not backward and low quality as discussed in contemporary narratives about Chinese peasants (see Schneider 2015). They have their specific advantages. Furthermore, some villagers are not purely "smallholders". Although villagers in China usually have small, even tiny, plots, some have acquired more land as an adaptive livelihood strategy. This will be analysed in the following sessions/chapters.

[7] The two track pricing system is the transitional pricing system implemented when China moved from a centrally-planed economic system to a market-dominated economic system. Under such a system, part of the raw materials are sold to the state at the planned price, while the rest can be sold at market prices. (http://baike.baidu.com/view/538126.htm accessed on 11 January 2017) This means that government officials and managers in SOEs can buy at a cheap (state) price, stockpile, and then sell at a high (market) price to make huge profits. This process underlies the creation of the first 'cadre-capitalist class', see Hung (2015).

[8] Also cited in Arrighi, Aschoff, and Scully (2010, 416).

[9] A formal registration of the population by government, based on the household unit, and with a strict division between the rural and urban populations. The system was introduced in the early 1950s as a statistical/ recording system and, from the late 1950s, became an institution to control geographical mobilization (Chan and Zhang 1999). Under this system, citizens are classified by socio-economic eligibility ("agricultural" and "non-agricultural") and residential location ("local" and "non-local"). The classification is related to citizens' entitlements to the resources and services provided by the state. Thus, without a local non-agricultural

Hukou, it would be difficult for a citizen to permanently live in the city. The *Hukou* system, though it has gone through a variety of reforms, still "directly and indirectly, continues to be a major wall in preventing China's rural population from settling in the city and in maintaining the rural- urban 'apartheid'" (Chan and Buckingham 2008, 604).

[10] Rural land rights in China are closely linked to Hukou status. Under the Household Reform System (HRS) reform, the land user rights were allocated to rural dwellers with an agricultural Hukou in the village community they belong to. These rural dwellers would not lose their land rights unless they give up their local agricultural Hukou (Andreas and Zhan 2016). However, Andreas and Zhan (2016) have noticed a gradual shift in land rights from being Hukou-based to being more market-based under the current Hukou and land reforms.

[11] Note that, after a short-lived period of prosperity in the 1990s, these TVEs have already declined. (Buck 2007).

[12] A few scholars have different opinions about the same institutions (e.g. TVEs). According to Arrighi (2007, 362-363), collectively-owned TVEs emerged in rural China during the period of fiscal decentralization to promote local economic development and increase cadres' bonuses. The role of TVEs in redistributing surplus is expressed in two ways, namely: paying taxes and levies to rural communities, and employing rural surplus labour to raise villagers' incomes. However, Walker (2006) argues that TVEs are used as tools for extracting rural surplus. In other words, where Walker argues that TVEs, rather than being organizations that redistribute the surplus from urban to rural areas within the AWD scheme, they simply fuel a new round of extraction in rural areas, Arrighi claims that TVEs enable capital to reflow from urban to rural areas with capitalist development. Both Arrighi's and Walker's explanations are supported by empirical evidence from contemporary rural China, but in different regions and during different time periods: Webber (2008) argues that the TVEs, under the protection of local states within the context of a non-competitive, centrally-planned economic regime, did indeed improve villagers' welfare by subcontracting work from the urban industrial sector. Buck (2007), meanwhile, states that TVEs reformed the rural land-labour relationship, and changed the rural farmers into subordinated wage workers. According to Walker and Buck (2007, 43-44), when TVEs privatized or closed in the context of the market economic regime in the late 1990s, these rural workers were forced to become the industrial reserve army. This is a reminder to pay attention to differences across space and time when studying the rise of capitalism and its rural-urban linkage.

[13] Findings from my fieldwork in 2016, show that 13 of the interviewed villagers were doing unskilled wage-labour jobs in the ITP sector (i.e. weeding and fertilizi ng). Their average annual income from these jobs was 3342 yuan per capita, whic

h is very little compared to the average annual wage income in China (67569 yuan per capital in 2016). Data from the National Bureau of Statistics of China: http://data.stats.gov.cn/easyquery.htm?cn=C01.

[14] In China, forestland is a type of land classified by the state. It is hilly land but not necessarily with natural forests on it.

[15] Mu refers to a unit for the measurement of land – 15 mu equals 1 hectare.

[16] Although, according to Zhang (2012), Chinese contract farming might contain some distinct features.

[17] His study is based on contemporary land grabs in the context of an Indonesian palm oil plantation. The notion of adverse incorporation, "as a fairly broad critique of neoliberal accounts of poverty and development," refers to "the risks and disadvantages of inclusion and participation in unregulated capitalist markets" (du Toit 2009, 2).

[18] Yuan is the monetary unit of China. 1 euro equals 7.1 Yuan.

[19] Beihai, Nanning, Qianzhou, Qinlian, Yunlin and Wuzhou are all cities in Guangxi.

[20] This might be different from maize production in the Northeast of China, which tends to encompass large-scale and highly industrialized production (Gale, Jewison, and Hansen 2016).

[21] In this study, I mainly focus on the politics of land use change rather than broader geographic and ecological measurements in land use changes (including land cover, biomass, etc.).

[22] 1 hectare equals 15 mu.

[23] See http://www.china.org.cn/china/CPC_90_anniversary/2011-04/19/content_22392494.htm, accessed on 11 September 2018.

[24] The data comes from the Statistic Year Book of China 2013: http://www.stats.gov.cn/tjsj/ndsj/2013/indexch.htm, accessed on 11 January 2017.

[25] http://baike.baidu.com/view/6054077.htm, accessed on 11 January 2017.

[26] Data source: http://www.stats.gov.cn/tjsj/zxfb/201704/t20170428_1489334.html. Accessed on 16 April 2018.

[27] I said "villagers leave land", because villagers are doing off-farm work and have physically left the land and farming activities. But this does not mean that villagers have been legally separated from land, either voluntarily or forced.

[28] http://cpc.people.com.cn/GB/134999/135000/8104098.html, accessed on 11 January 2017.

[29] There are different types of subsides for different type of forests/plantations. Under the Returning Farmland to Forest Program, planters got 210 yuan per mu

per year for five years (as commercial forests/plantations) or eight years (as ecological forests/plantations). In 2007, the central state prolonged the subsidies for another five or eight years at reduced rates of 125 yuan (Zinda et al. 2017). The subsidies and free seedlings increased the economic incentives for villagers in Guangxi to plant eucalyptus trees.

[30] http://news.xinhuanet.com/theory/2008-12/18/content_10522035.htm, acce ssed on 11 January 2017.

[31] Except for the regular agriculture tax, peasants still had to pay fees and charges called "five tongshou three tiliu.". These were: family planning, social special care, militia training, road construction, and education fees at the township level (five tongshou), and pubic accumulation funds, public welfare funds, and administration fees at the village level (three tiliu). There were also other charges, such as "self-raised funds" (jizi), and apportions (tanpian).

[32]"辛辛苦苦三百天，洒尽汗水责任田; 亩产千斤收成好，年终结算亏本钱" (http://news.ifeng.com/special/60nianjiaguo/60biaozhirenwu/renwuziliao/200909/0910_7766_1342837.shtml, accessed on 11 January 2017). A new year co uplet is a decoration pasted on the door and always expresses wishes for the new year.

[33] "农民真苦，农村真穷，农业真危险"（http://blog.sciencenet.cn/blog-518437-522104.html accessed on 11 January 2017）.

[34]http://zh.wikipedia.org/wiki/%E5%86%9C%E6%9D%91%E7%A8%8E%E8%B4%B9%E6%94%B9%E9%9D%A9, accessed on 11 January 2017.

[35] http://www.gov.cn/test/2006-03/06/content_219801.htm, accessed on 11 January 2017.

[36] However, similarly to soy and maize in Northeast China (Hairong, Yiyuan, and Bun 2016, 381), the profitability of a crop is not simply affected by economic factors. As will be analysed in Chapter 3, it is also related to the state's strategic control of the prices of certain crops (including sugarcane), but not other crops (e. g. eucalyptus trees).

[37] During my preliminary fieldwork in 2014, employees of the Guangxi Forestry d epartment told me of the plan to limit the scale of ITPs in Guangxi. Some counti es in Guangxi and Guangdong have issued policies to stop the planting of eucalyp tus trees and plan to completely remove the ITPs already planted, due to their neg ative environmental impacts and the resistance from below that they generate: htt p://news.sohu.com/20060411/n242749631.shtml, http://www.eeo.com.cn/201 4/0815/264952.shtml, accessed on 11 January 2017.

[38] The state-owned forest farms (e.g. Dongmen State-owned Forest Farm, Gaogeng State-owned Forest Farm) are also "Dragon Head Enterprises". For a

more detailed analysis of "Dragon Head Enterprises" and its role in the rural capitalisation in China, see (Schneider 2017).

[39] This information comes from the interview with employees at Store Enso and from a state farm during my preliminary fieldwork in spring 2014.

[40] I refer to the total scale of land leased by state forest farms rather than the scale of each case.

[41] Although this is a special case, because the enclosure was done in order to create a non-agricultural, special economic zone – similar to what Levien studied in India (Levien 2012).

[42] This is different from the findings by Deng and Yang (2013, 321), in that, in the face of real and serious pollution, villagers may seek to redress environmental grievances by piggybacking on politically favourable issues.

[43] Of these interviews, 105 were conducted with questionnaires as guidelines.

[44] Because my fieldwork is conducted in multiple sites. Although snowball sampling might show bias due to the selection of the first few participants, this is a method that could help me quickly access key informants, especially those who were involved in the conflicts. During the process, I selected and visited varying sites with distinct dynamics of the crop boom and in each site tried to start by interviewing normal villagers rather than local elites (e.g. rich farmers and village leaders).

[45] In this study, except a few cases (when the information came from newspapers and/or was already well-known), most village names are pseudonyms (replaced by letters of the alphabet) to protect the informants.

[46] http://baike.baidu.com/subview/327591/7967028.htm, accessed on 11 January 2017.

[47] This number needs further examination as he is employed by Stora Enso to guard the plantation.

[48] According to the data provided by officials in the county.

[49] Some of the interviews did not follow the pattern in the questionnaires. Furthermore, a few interviews were interrupted for various reasons. These interviews are considered "incomplete" in this Table.

[50] In some natural villages I visited, the farmland had already been leased out to entrepreneurs/companies for large-scale sugarcane cultivation.

2 Chapter 2: The rise of the ITP sector in Southern China

2.1 Introduction

For a fuller understanding of the characteristics and trajectory of global land politics, especially the new role of China, in this chapter I analyse the rise of the ITP sector in Southern China with a more detailed, albeit preliminary, discussion around ITP's technological, value, material, and financial bases. To be specific, this chapter identifies and then discusses four factors that play a role in the expansion of ITPs in Southern China, namely, the domestic demand for the products, the agronomic conditions, the institutional conditions of land control and labour in rural China, and the financial capital from both domestic and international sources. Prior to this, I will introduce certain empirical issues in relation to the ITP sector in general and in China (in Guangxi in particular).

2.2 The ITP sector, globally and in China

As mentioned earlier, the ITP sector is less visible in the emerging literature on global land politics and crop booms despite its scale, its various patterns, and its multiple end uses. First of all, the ITP sector is responsible for probably far wider land-use changes than other boom crops (see Table 2.1).

Table 2.1 *Regional plantation areas and their increase between the years 1990 and 2010 (million Ha)*

	1990	*2010*	*Change %, 1990-2010*
Africa	11.663	15.409	32.1
Asia and the Pacific	74.163	119.884	61.6
Russian Federation	12.651	16.991	34.3
Europe	46.395	52.327	12.8
Caribbean	0.391	0.547	39.9
Central America	0.445	0.584	31.2
South America	8.276	13.821	67.0
Near East (excluding N. Africa)	4.677	6.991	49.5
Canada	1.357	8.963	560.5
Mexico	0.35	3.203	815.1
USA	17.938	25.363	41.4
World	178.307	264.084	48.1

Note: Data is cited from Kröger (2014b, 242). The ITP sector here includes rubber and palm oil, although fast-growing trees occupy the highest percentage of the sector.

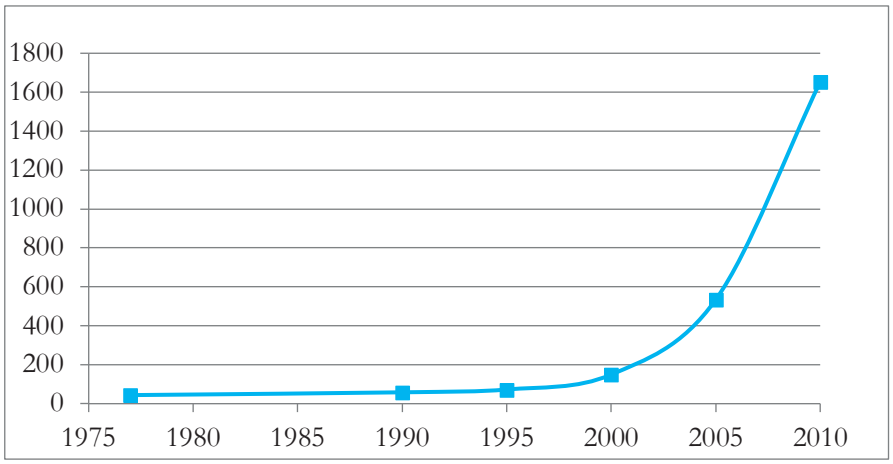
Secondly, the ITP sector involves variegated forms in terms of scale, land property rights, investment mechanisms, and implications. The tree plantations could be either large or small-scale, and be either publically or privately owned. Furthermore, the boom in the ITP sector could be driven by an alliance between the industrial sector and the state, as in the case of Brazil (Kröger 2012), or based on smallholder units, as in the case of Vietnam (Sikor 2011). Lastly, the rise of the ITP sector may sometimes lead to large-scale rural displacement, as in the case of Ecuador (Gerber and Veuthey 2010).

Thirdly, as already mentioned in Chapter 1, the ITP sector is involved in the current global flexing complexity partly based on the multiple (both actual and potential) uses of the tree crops (Margulis, McKeon, and Borras 2013). ITP outputs can be raw materials for wood-based boards and panels, paper, and energy (including for bio-refineries, electricity, and heating) (Overbeek, Kröger, and Gerber 2012, 15). Furthermore, the trees can be used as "carbon sinks". These emerging uses of the ITP sector are associated with the development of technology and increased demands for its products as fuel and environmental crises converge (Kröger 2014a).Within

the current context of contextual changes, these multiple uses of industrial tree crops increased the longevity of investments, i.e. by "enabling investors to better anticipate – and more nimbly react to – changing prices, e.g. to better exploit price spikes or withstand price shocks" (Borras et al. 2016, 94). In other words, when the price of paper is high, investors can choose to produce paper or sell the outputs to paper-pulp companies; when the price of wood-based products rises, they are able to gain profits from corresponding products.

The ITP sector, with profound implications worldwide and complicated dynamics, deserves to be studied systematically, especially as the sector has gained ground and expanded so dramatically recently in China. As mentioned in the previous chapter, Guangxi, as a key hub of the ITP sector in China, is the regional focus of this study, and eucalyptus, as a subsector within the ITP sector, is the principal sector for research. Guangxi province is located in the southwest costal area of China. The geographic location creates suitable natural conditions, namely, a subtropical, mild and moist climate, for eucalyptus. This will be analysed in detail in the following part of this chapter.

***Figure 2.1** Area of eucalyptus trees in Guangxi (1000 ha)*



Source: 1977-2005 data (Pang (2006), 2010 data (Wei (2011)

As shown in Figure 2.1, in the 25 years before the year 2000, the acreage of eucalyptus increased by about 3.5 times from 43.2 thousand ha in 1975

to 148.8 thousand ha in 2000. In the ten years from 2000, the area covered by eucalyptus expanded 11 times to the current (2013) total of 1653.3 ha. To date, Guangxi has more than one-third of all the fast-growing plantations in the whole of China, and in terms of eucalyptus coverage, Guangxi ranks first in China. However, the expansion of ITPs may have slowed down since 2013 when the Guangxi Forestry Department issued a policy to reduce the area of eucalyptus trees in Guangxi. This is related to the competing roles of the state and will be discussed in Chapter 3.

Within the ITP sector in Guangxi, both overseas and domestic companies are involved. The foreign investors (Stora Enso from Finland and APP from Indonesia) mainly specialize in paper products, whereas the domestic investors, including state forest farms, mainly specialize in timber/board/furniture products. The commodities produced from the ITPs are mainly for Chinese domestic consumption.

This scenario created by such land investments in Southern China thus raise the question: why did industrial tree plantations emerge and expand so massively in Southern China within such a short period of time? In other words, what are the internally-driven and externally imposed factors that caused the rise of the ITP sector in Southern China, especially Guangxi? In order to fully understand such dynamics, in the following sections of the thesis, the value, material, institutional, and financial bases for the development of the ITP sector in Southern China will be explored.

2.3 The domestic demand for the products

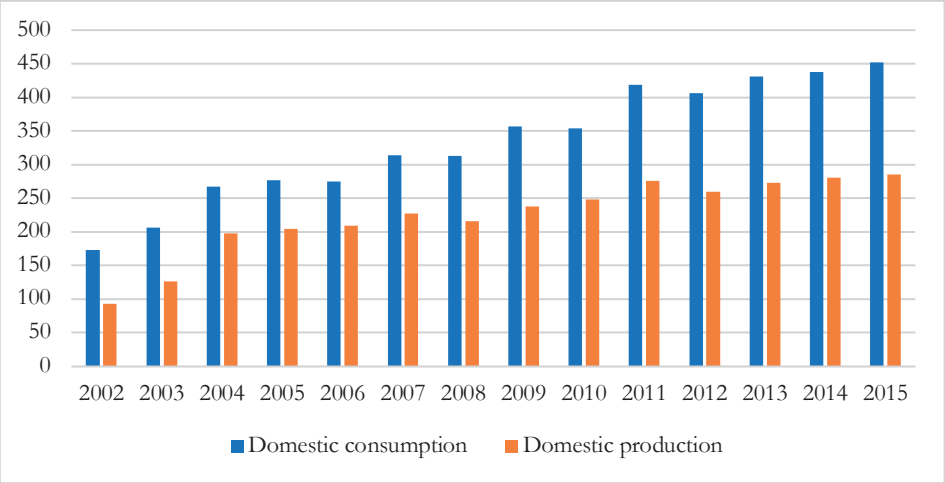
As mentioned above, the products of the industrial tree plantations are highly diverse, ranging from the tangible (paper, board and wood-based energy), to the intangible ("carbon sink"). In Southern China, the carbon market has not yet matured due to difficulties around the carbon sequence assessment, and wood-based energy, which mainly uses simple combustion for heating rather than bio-refineries, is gradually being substituted by electricity generated from other sources. This leaves boards/panels and pulp for paper as the main uses of the industrial tree crops.

In China, the domestic demand for these forest products is huge[1], given to country's fast urbanization rate and remarkable population growth. Before 2000, the domestic demand for these products far outstripped supply. According to the *Chinese Forestry Development Report* 2001, the existing gap between domestic demand and supply in 2000 had reached 33.6 million

m^3,[2] and the average prices of timber and paper both increased compared to 1999. [3]

Since then, the mismatch between the demand and supply of forest products has gently reduced, partly due to the rise of industrial tree plantations from 2000 onwards. As shown in Figure 2.2, the production of forest products has increased dramatically in the past decade, from 93.42 million m^3 in 2002 to 285.15 million m^3 in 2015. At the same time, the domestic consumption of forest products has also more than doubled, and the percentage of domestic consumption has remained over 80% of the total supply.

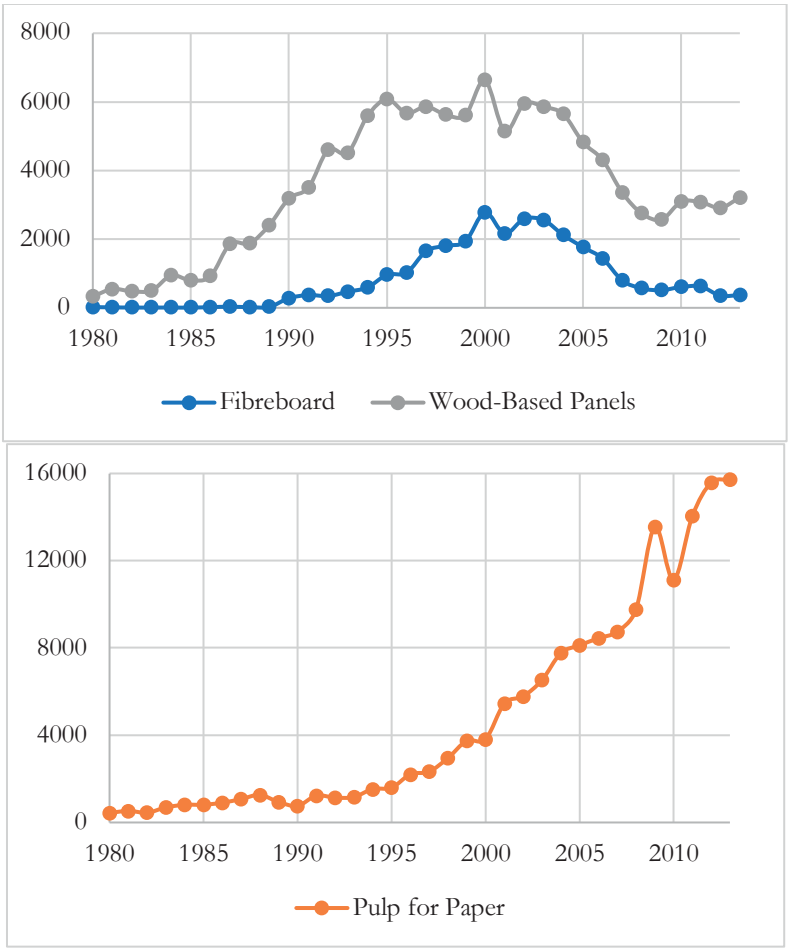
***Figure 2.2** Domestic consumption and production of forest products in China (Million m^3)*



Source: Chinese Forestry Development Report 2003-2013 (2003-2013 年中国林业发展报告)[4]

But this does not the mean that domestic demand is now saturated. In 2011, the average annual household paper consumption per capital was only 3.9 kilos, far below the amount consumed in North America (25 kilos), Western Europe and Japan (15 kilos).[5] This means that the demand for the forest products, especially paper, has a huge capacity to increase in the future.

Figure 2.3 *The Chinese import volumes of fibreboards (1000 m3), wood-based panels (1000 m3) and pulp for paper (1000 tonnes)*



Source: FAOSTAT, http://faostat3.fao.org/download/F/FO/E, access on 23 February 2015

The strong domestic demand for forest products has caused the value of these products to soar. Correspondingly, the market for these products has thrived. Because of this, more fibreboard, wood-based panels, and paper pulps have been imported since the Reform and Opening period *(Gaige Kaifang)* in the 1980s (see Figure 2.3). The import volume of fibreboard in 2000 was over 140 times the 1980 volume, and the import of wood-based panels grew from 329.2 thousand m^3 in 1980 to 6626.5 thousand m^3 by

2000. However, the import volumes of the fibreboards and wood-based panels decreased after 2000. This is related to the expansion of ITPs in Guangxi and to the technological breakthrough in the processing of boards.[6] Unlike fibreboards and wood-based panels, the volume of imported pulp has been increasing since 1980, and reached about 16 million tonnes in 2013, accounting for a large part of the total supply of the pulp in China.[7] The increase of the import volume of pulp for paper, even after the expansion of ITPs, implies differences within the commodity chains of these products, something which needs further research.

The surging increase in domestic demand since the 1980s actually created the value base for the development of ITPs in China. This can be seen by the rapid increase in the price of eucalyptus trees from 200 Yuan per m^3 in 2000 to 850 Yuan per m^3 in 2015 (Field notes, 27 March 2015).[8] However, this demand on tree crop products alone did not push the rise of ITP sector, the rise also needed a material base (i.e. agronomic conditions).

2.4 The agronomic conditions in Southern China

The emergence and expansion of the ITP sector in Southern China (especially in Guangxi), rather than anywhere else, is mainly a result of its specific climate and land conditions.

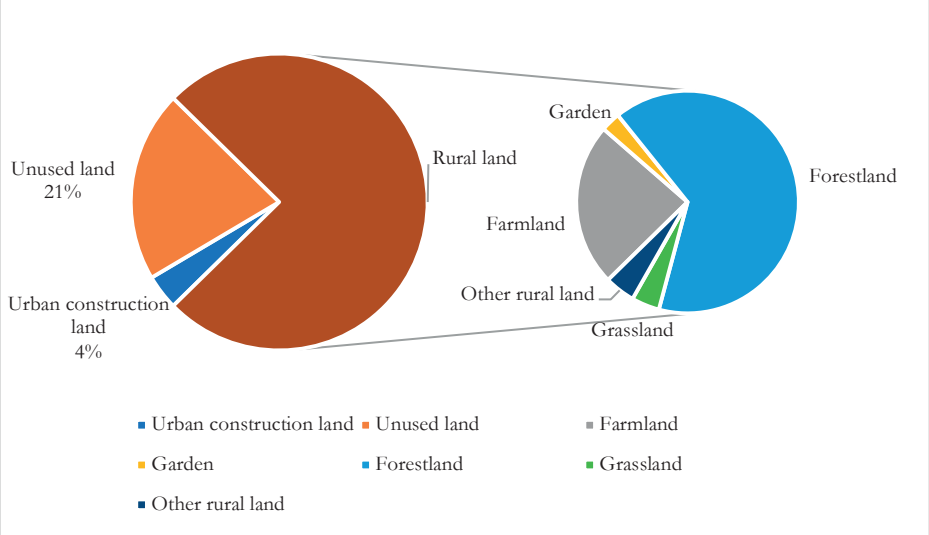
The climate of Southern China, especially Guangxi, is advantageous for tropical crops, especially eucalyptus trees: the temperature is mild, with annual average temperatures around 20 degrees centigrade and little seasonal difference.[9] The annual rainfall is also abundant, at around 1300-3000 mm per year. This is very suitable for eucalyptus tree crops which originate from tropical areas.

The land conditions in Guangxi are challenging for agricultural production. According to the introduction in the official Guangxi Agricultural Department website, 68.3% of the territory in Guangxi is hilly (hills over 200 m high), and a large number of these hills are rocky.[10] Most, if not all, of the land is rather barren and covered with thin red soil and (more than 80%) lacking the necessary nutritional elements - nitrogen, phosphorus, or potassium - for crop growth. This means that arable land in Guangxi is both bad quality and of limited quantity, and thus not suitable for crops which have high requirements on soil quality. On the other hand, there is

more than enough sloped forestland, implying potential for the development of forestry.

Linking this natural endowment with the present land-use, the importance of the agricultural sector, especially the forestry sector, in Guangxi is self-evident. According to a land-use survey conducted in 2005 (as shown in Figure 2.4), rural land (including land used both directly and indirectly for agricultural production) accounted for about 75% of total land in Guangxi, equal to 17.89 million ha.[11] Within this rural land, 65% (around 11.61 million ha) is forestland, which is an area almost three times larger than the flat farming land.

***Figure 2.4** Land-use in Guangxi*



Source: Author's elaboration based on data from Land-use Plan of Guangxi Zhuang Autonomous Region (2006- 2020)[12]

However, these favourable climate and land conditions in Guangxi did not immediately induce the increase in eucalyptus tree production after it was introduced into China in the 1890s[13]. This is because the species introduced at that time did not show huge economic potential. The development of eucalyptus tree planting did not take off until the 1980s when Dongmen Forest Farm, a state-owned farm in Guangxi, started a technological collaboration with Australia around the forestry sector, particularly

around the introduction and cultivation of eucalyptus tree species[14]. More than 100 species were introduced through this collaboration (Field notes, 17 Mar 2014), among which one fast-growing species, *Eucalyptus grandis* × *E.urophylla,* which soon became popular across Southern China due to its high economic value.

Specifically, as already mentioned in Chapter 1, this tree species is characterized by a fast growth rate and a strong regeneration ability. Moreover, to improve the profitable features of this eucalyptus tree species (an even shorter growth period and greater amount of growing stock per unit), the hybrids were cultivated using clone technology in various seed base labs including the experimental site in Dongmen forest farm). In this way, the technological development in seed cultivation, especially cloning techniques, strengthened the economically attractive characteristics of the eucalyptus tree crops, which played a critical role in the massive and rapid expansion of eucalyptus in Guangxi.

2.5 Land control and labour changes in rural Guangxi

However, market demand and agronomic conditions still do not offer sufficient explanation for the massive and rapid expansion of ITPs in Guangxi: the institutional dynamics around land control and labour cannot be neglected. Rural land in Guangxi, as in other regions of China, went through three stages: collectivization, (re)distribution, and concentration. In line with the general agrarian transformation in China, both farmland and forestland in Guangxi were collectivized in the 1950s. Subsequently, as mentioned in Chapter 1, in the 1980s, farmland and a small part of the forestland were contracted to villagers under the HRS reform.

Under the HRS, user rights of rural land were contracted to farmers based on a principle of fairness, mostly according to the size of the household (Unger 2002, 107). Specifically, land was categorized according to its geographic, irrigation, and fertilization conditions before being allocated in each village. Following this categorization, each type of land ("good land" and "bad land"), apart from the collectively reserved land, was divided and distributed on a per capita basis in the village (as shown in Figure 2.5: one piece of paddy land was divided and allocated to several households). Because population density in rural China is high and land patches with different qualities are dispersed, one household in a rural area may have several tiny and spatially separated plots of farmland: some flat

and irrigated which can be used to cultivate paddy and vegetables; some intermediate and suitable for sugarcane and fruit trees; and some hilly and rocky and can only be planted with crops like eucalyptus trees.

***Figure 2.5** Fragmented paddy land*

Source: Photo was taken in Shanglin County of Guangxi on 7 April 2015

Such land fragmentation caused by land reform is thought to be the main limitation for the development of rural China (Zhang, Ma, and Xu 2004). In order to concentrate the spatially separated land, land transfer under the HRS has been promoted over the past almost four decades (Ye 2015). The transfer rate of rural land had been very low in the 1980s, because rural land could "not be legally leased out for profit" according to the *Land Management Law* issued in 1986 (Hsing 2010, 1). As shown in a survey conducted by the Agricultural Department of China in 1990[15], the number of rural households that transferred their contracted land was more than 2 million, accounting for 0.9% of total HRS recipient households, and the area of transferred rural land accounted for 0.44% of total farmland, which was 6379 thousand mu (425 thousand ha). However, in the 1990s, the number of rural land transfers skyrocketed, as urban sprawl

and marketization fuelled rapidly increasing land values (Hsing 2010, 1). This trend has continued, and by the end of 2008 the acreage of transferred (the user rights) rural land reached 109 million mu, or 8.9% of the total farmland in China. In July 2016, a new policy issued by the central government further freed the rural land market in pilot counties. It legalized and standardized the processes of rural land transfer.[16]

Echoing these changes, the China-wide land concentration project named "*transforming small plots into large plots*" (*Xiaokuai bian dakuai*) was also introduced in Guangxi. The "*transforming small plots into large plots*" project is a land exchange programme conducted within communities which started is 1996.[17] In the beginning, such land consolidation/concentration was driven by a few villagers spontaneously exchanging the fragmented land awarded under the HRS reform (as mentioned above) based on social relations (i.e. villagers' intimate relations). Later, the state (referring to the local state at the provincial level) started to get involved and soon became the driving force. According to interviews with officials in Guangxi (Fieldnotes, 9 March 2015), since 2002 the provincial state has provided bonuses to those villagers, rural cooperatives and companies who invest in land levelling and infrastructure construction (including road and irrigation construction) to encourage land consolidation/concentration. [18] The county governments help the villagers/rural communities to find loans and firms specialized in land levelling/ infrastructures construction to facilitate the project. According to a document issued by the provincial government[19], the amount of consolidated/concentrated land in Guangxi is targeted to reach as much as 500,000 mu in 2015 (equal to 33,333 ha).

This land exchange did not change the total area of the land owned by each household,[20] but the originally non-adjacent land became contiguous. On the one hand, this kind of land consolidation simplified the ownership of the contiguous patches, which actually facilitates land investments by making large-scale land transfers more convenient. On the other hand, it transformed production towards more machine-based, value-added crop cultivation like eucalyptus trees. This enriched a group of villagers, particularly the rural elites, village cadres, and their relatives.

It is a different story for forestland. As shown in Table 2.2, in Guangxi more than 90% of the forestland is owned by a collective. Under HRS, a central policy related to the redistribution of forestland ('three determination', *Sanding* policy) was launched in 1984. The policy aimed to contract forestland to rural households as farmland in several experimental spots

throughout the country. But at the end of 1984, the reform was found to have resulted in large-scale deforestation in these regions, particularly in Southern China. As a response, the reform was curbed.[21] Thus, except for a small number of the hills already allocated in a few villages, most of the collectively-owned forestland remained in the hands of collectives. This implies that a large amount of land is under ambiguous regime in rural China and might be a good area in which to invest/speculate.

***Table 2.2** Property rights of forestland in Guangxi (in 2010)*

Types	*Area (10000 ha)*	*Percentage*
State forest farm-owned	148.88	9.28%
Collectively-owned	1456.11	90.72%
Total	1604.99	100.00%

Source: Author's elaboration of the data from the present (2011) forestland use table in the 12th Five-year Plan of the Development of Eucalyptus in Guangxi (2010-2015)[22].

In 2008, forestland reform, in the guise of *Opinions of CPC Central Committee State Council on Comprehensively Promoting Collective Forestland Reform*[23], was introduced by the central government to clear the property rights of forestland. It planned to contract forestland to households with a contract term of 70 years to make sure that rural villagers were the *de facto* users of the forestland, to clear the property rights and forestland boundaries with the issuance of official certificates within five years, and to ensure that the forestland was managed according to its classified usage, mainly commercial or ecological forests. For the contracted commercial forests specifically, villagers could make their own decisions about land-use, production mode, and product circulation. For the ecological forests, the villagers could get ecological compensation and plant other crops (e.g. vegetables) and breed animals under the tree crops. Under the forestland reform, the user rights of the collective forestland were, thus, formally distributed and cleared, although most of the lands had already been used or occupied by villagers themselves or by external investors before the reform and especially since the reforestation subsidy policy in 2002. Such contradictions in the control of forestland during the reform will be analysed in Chapter 3.

In addition to these formal means mentioned above, there are several informal ways of (re)distributing land in Guangxi. Even when land plots

have already been allocated to rural households under the HRS/forestland reform, redistribution still takes place among households via extra-economic methods, including (1) social relations, (2) "everyday forms of resistance" and (3) sometimes, occupation by a few individual powerful villagers.

To describe this in more detail, firstly, some villagers can gain access to the land allocated to their neighbours, friends or relatives when the latter's households are short of labour due to internal migration or/and sickness. Such land redistribution is always temporary, based on personal relationships, and with no legal contract and very little (or even no) compensation[24]. Sometimes, due to the close social relationships or blood ties, the redistribution might be flexible, and the original "owners" (user right owners) can get their land back (usually after failing to find work in urban areas) after the harvest. Sometimes, this type of redistribution might lead to conflicts, if the present "owners" are not willing to return the land.

Secondly, some villagers expand their land "ownership" through gradual and covert encroachment of neighbouring land owned by the other villagers or state farms. They usually secretly and gradually move their boundary marker outwards. Similar to the cases analysed by Scott (1986b) in Southeast Asia, these villagers cut corners to ensure subsistence. And in most cases, according to my interviews in Guangxi, it is hard for the original owners to claim back this land.

Thirdly, a few powerful villagers, called the "rural land-seeking elites" by Zang (2012), use coercion to occupy land. This land acquisition process may or may not be carried by local state carders, but will generally be committed by an individual and is more common in villages with less blood ties.

For the "unused"/ "underused" or "waste" land, mainly undistributed forestland in my case of Guangxi, customary land ownership is commonly agreed to. In other words, once someone in the village has reclaimed one piece of forestland, the land is then believed to belong to his/her household and no one else in the village will use it. These pioneers are usually labour-rich households which have extra money for the venture. They sometimes also have special social positions in the village (e.g. village leaders). These land distributions were originally based on the moral and cultural, though not legal, conventions of the whole community. Later, under forestland reform, these "owners" got legal "user" certificates.

Similar to land control change, the labour conditions in Guangxi, as in other regions of China, have also changed significantly, mainly due to massive rural-urban migration. As already mentioned in Chapter 1, some family members, usually the young and the physically strong, leave their villages and seek jobs in the cities. Such internal migration is always temporary and seasonal. But it takes away a large number of labourers from rural Guangxi. According to the *Chinese National Report on Migrant Workers 2012*,[25] Guangxi is the 10th largest supply province of peasant workers. The total number of rural-urban migratory workers in Guangxi reached 11.65 million by the end of 2015, which equals more than one-fifth of the total population there.[26]

Internal migration has significantly changed labour conditions in rural Guangxi and works in favour of the development of a labour-saving crop such as eucalyptus trees[27]. Thus, in Guangxi rural villages, those households with family members who migrated are most likely to be the ones that plant eucalyptus trees if they have access to land and capital. As explained by a villager during a focus group discussion: "What kind of people in the village will plant eucalyptus trees? For example, one household has three brothers. When two of the brothers migrate to work outside, the rest is too busy (to cultivate the land). Then, this household will plant eucalyptus trees." (Field notes, 6 March 2015)

In turn, the development of the ITP sector reshapes labour conditions in Guangxi. According to my fieldwork, some villagers who used to be migrant workers gave up their wage labour in urban areas in order to specialize in the eucalyptus tree business in rural areas (group discussion, 13 April 2015). In this sense, under certain conditions, the rise of the ITP sector can lead to reverse migration from urban to rural areas.

As discussed above, the land-labour conditions related to the institutional settings in Guangxi have been the cornerstone for further land transfers over the past 10 years. But the rise of the ITP sector requires more than institutional arrangements; it also needs financial support.

2.6 Land concentration and domestic and foreign land investment

There were three different patterns of land investment, each driven by different financial sources, which directly or indirectly facilitated the rise

of the ITP sector in Guangxi, namely, (i) land investments driven by villagers/rural cooperatives, (ii) land deals driven by corporations, including transnational corporations (TNCs), and (iii) land leasing driven by state farms.

Several land investments in the ITP sector in Guangxi were driven by individual rural households or cooperatives. Those individual rural investors are the so-called "large households" (*Da hu*) - these households possess natural capital, social capital or economic capital (Scoones 1998). They leased land from their village collectives or neighbouring villagers, usually with the financial capital accumulated from their migration to urban areas (sometimes with financial support from relatives and/or banks). They carried out large-scale mechanized industrial agricultural production, and then sold their products either directly to processing companies or indirectly to middlemen who sold them on.[28] The rural cooperatives, which are mainly organized by these "large households" operate similarly to the individual rural households except for two things: the funds are raised from cooperative members, and the profits are distributed based on members' shares.

The second pattern is land investment driven by corporations and has two sub-forms. Companies may lease land directly from state farms, village collectives, or individual villagers to build their ITP production bases. Or, according to the company reports, they have contracts with independent growers to get raw materials (mainly eucalyptus trees) at a certain price with the provision of (sometimes subsidies for) seed, technology, and other chemical inputs. Transnational companies (TNCs) are actively involved in this pattern of land investment. Two paper-pulp companies, namely, Stora Enso (from Finland) and APP (from Indonesia) control in total around 200 thousand ha of ITPs and have invested more than 50 billion Yuan. In order to gain a better understanding of these TNC-driven land investments in Guangxi, Chapter 4 will examine the mechanism of land investment by these two foreign investors.

In addition, the scale of land leasing led by state farms is also considerable and may be even greater than foreign investments. At Gaofeng Forest Farm, for example, more than 65.7% of the forestland is leased from smallholders in order to fill the land shortage caused by land leasing to foreign companies (e.g. Stora Enso). According to the interview with an employee working in the state farm, most of the land leased by these state farms is used to grow eucalyptus trees to provide raw materials for

board/panel production aimed at the domestic market (Field notes, 20 March 2014). With the land they control, these state farms not only build ITPs independently, they also cooperate with other domestic and foreign companies. Dongmen forest farm, for example, used to cooperate with Wangzi Company from Japan. According to employees from the state farm, during the cooperation period, this state farm offered land and Wangzi Company provided financial and technical support and they both shared the profits. (Field notes, 10 March 2015). Meanwhile, with the rise of the ITP sector, a few state-owned farms started to expand their business from production to processing, which enhanced their power, and put them in a more advantageous position within the value chain.[29]

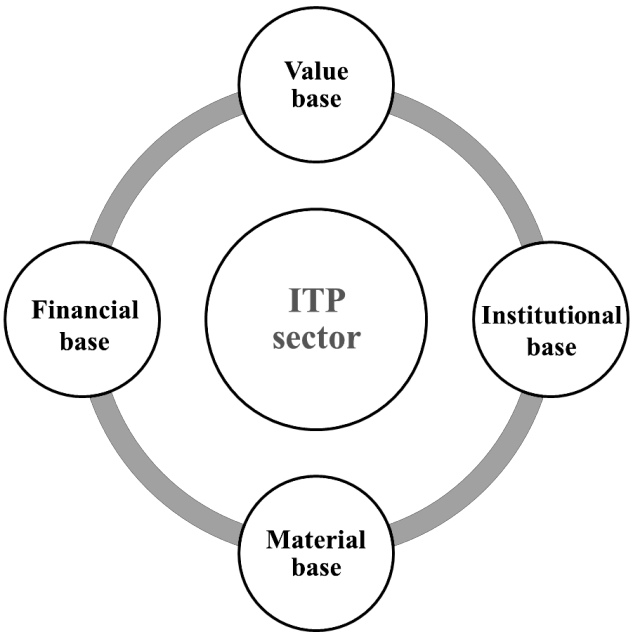
Such land investments, driven by different sources of financial capital, are closely interlinked with the rise of the ITP sector. On the one hand, both domestic and foreign capital involved in land investments created the required conditions for ITP expansion. On the other hand, more financial capital is and will be stimulated to flow in as a result of booming investments in the ITP sector.

2.7 Conclusion

The emergence and expansion of the ITP sector cannot be simply seen as the result of the factors analysed above. Rather, it has more complicated dynamics due to the interactions among the factors. As shown in Figure 2.6, the value, material, institutional, and financial basis for the rise of the ITP sector discussed above are all intertwined. Technological development in the cultivation of industrial tree crops was stimulated by the high economic value of ITPs and driven by the huge domestic demand. In turn, this technological development enhanced certain characteristics of industrial crops (e.g. faster growth rate), which made the sector more economically attractive. Labour and land conditions in Guangxi, transformed by massive internal migration and rural land reform, made the emergence of ITPs, which are characterized as land-intensive-but-labour saving, possible. Furthermore, with the development of the ITP sector, land is further concentrated and labour continually migrates, thus making the land and labour conditions in rural Guangxi more favourable for the expansion of the ITP sector. Similarly, financial capital is attracted by economic features, and strengthened by technological development and the suitable land and labour conditions under the specific institutional environment.

The large-scale investments driven by capital from both inside and outside China were not only the main driving force for technological development, but also transformed the land-labour conditions with changes in land control and agrarian structures.

***Figure 2.6** The intertwined factors for the rise of the ITP sector*



Therefore, the rise of the ITP sector was pushed by the domestic demand for its products, the agronomic conditions in Southern China, the institutional conditions of land control and labour in rural China, and the financial capital from both domestic and international sources, with all of these factors intertwined.

However, after the rise of the ITP sector, the trajectory of its expansion was not linear, but was contiguously shaping and was shaped by the interactions of key actors (villagers, investors, and the state). Thus, how do villagers' land rights and labour conditions as well as state policies (at a national and local level) shape and how are they shaped by the contours and trajectories of the ITP sector? Who wins and who loses with the expansion of the ITP sector, and why? What are the implications of the ITP

sector for rural villagers in Southern China in terms of the political economy of their livelihoods, and how do affected villagers respond these changes? These questions will be addressed in Chapters 3-6. In the next chapter, I explore the role of the state within the rise of the ITP sector.

Notes

[1] Here forest products include the outputs from both natural forests and plantations.

[2] The estimated domestic demand in 2002 was 109.473 million m^3, while the planned production was 62.23 million m^3 and imports were 13.6117 million m^3. (http://www.forestry.gov.cn/main/62/content-82.html accessed on 16 January 2017).

[3] The annual average price of timber in 2000 increased by 4.7%, compared to 1999. And the price index of chemical pulp was 130.2 in 2000. (http://www.forestry.gov.cn/main/62/content-82.html accessed on 16 January 2017.

[4] http://www.forestry.gov.cn/CommonAction.do?dispatch=index&colid=62 accessed on 16 January 2017.

[5] http://www.paper.com.cn/news/daynews/2011/120809092545947125.htm accessed on 16 January 2017.

[6] Explained by both the professor from the Forestry department of Guangxi University (13 March 2014) and staff from one of the state-owned farms (18 March 2014). Staff of the state-owned farm mentioned that profits from manmade panels and boards have increased greatly recently due technological development.

[7] The percentage is 47%, calculated using data accessed from FAOSATA, but is "80%" according one staff member from one of the foreign companies in Guangxi during the interview on 21 March 2014.

[8] But this is not one-way: the rise of ITPs, in turn, had some (if not a profound) impact on the supply and demand relations around the production of ITPs, which is encapsulated in the import volume changes shown in Figure 2.4.

[9] http://www.gx121.com/gx_climate_info.asp accessed on 17 January 2017.

[10] According to the introduction on the official website of the Guangxi Agricultural Department (http://www.gxzf.gov.cn/zwgk/zfwj/zzqrmzfwj/201304/t20130415_420818.htm accessed on 17 January 2017.

[11] http://baike.baidu.com/view/1293581.htm accessed on 17 January 2017.

[12] Source: http://www.gxdlr.gov.cn/News/NewsShow.aspx?pd=1828&NewsId=3277 accessed on 17 January 2017. Here, I would like to highlight the 21% "unused land". As we are reminded by Borras and Franco (2010), the census data on "unused/marginal/degraded" land are usually unreliable, and the classification of land as "unused" by the state empirically facilitates the land grabs with claims of promoting economic productivity. So, this type of land might be involved in large-scale land investment in the future.

[13] Source: http://www.chinaeuc.com/data/shuzhong.aspx?id=46340ecc-fc7b-4b51-8175-2bd52c42b18e, accessed on 17 January 2017.

[14] http://blog.sina.com.cn/s/blog_598139890101e02m.html accessed on 17 January 2017.

[15] http://baike.baidu.com/view/15132539.htm?fromTaglist accessed on 16 January 2017.

[16] http://www.moa.gov.cn/zwllm/zcfg/nybgz/201607/t20160704_5195156.htm accessed on 16 January 2017

[17] http://www.mlr.gov.cn/xwdt/mtsy/jjrb/201403/t20140321_1308515.htm accessed on 16 January 2017.

[18] http://www.gxcz.gov.cn/gxzzzzqczt/yfwlgk/gfxwj/bbmwj/jjjsgl/201411/t20141125_47036.html accessed on 16 January 2017.

[19] http://www.gxdlr.gov.cn/News/NewsShow.aspx?NewsId=9595 accessed on 16 January 2017.

[20] According to the interview with staff working in the county government, the hectares of roads and irrigations were deducted and then the land was redistributed to the villagers based on the share of the total area of their original land plots.

[21] So, the property rights of the forestland in Southern China was rather vague before the forestland reform in the 2008. More details, see http://theory.people.com.cn/GB/9848175.html, accessed on 21 June 2018.

[22] 《广西桉树速生丰产用材林"十二五"发展规划》(2010-2015)

[23] http://www.gov.cn/gongbao/content/2008/content_1057276.htm accessed on 16 January 2017.

[24] Sometimes the cost is just a meal or the harvest of a very small plot.

[25] Source: http://www.stats.gov.cn/tjsj/zxfb/201305/t20130527_12978.html, accessed on 17 January 2017.

[26] Source: http://www.gov.cn/xinwen/2015-12/11/content_5022563.htm, accessed on 16 January 2017.

[27] According to the information gained during fieldwork in Guangxi, the trees only need labour in the first six months and during the harvest season (about 2 days per year per mu on average).

[28] It usually happens in the place where the transportation system is less developed or where the scale of ITPs is relatively small.

[29] For instance, Gaofeng State Forest Farm has built four timber processing factories in Guangxi.

3 Chapter 3: The role of the state in the expansion of the ITP sector in China

3.1 Introduction

The Chinese state played a critical role, using both economic and extra-economic instruments, in the expansion of the ITP sector in Southern China. These instruments could either promote or impede the ITP sector. They could also influence social relations around the ITP sector, in terms of who is excluded, who is included, who benefits, and who loses.

However, the hierarchical administrative system in rural China means that the role of the state is even more complicated than the above suggests: the role it plays may vary between different levels of government and change across time and space. Specifically, central and local governments might hold differing attitudes towards the ITP sector; the local state in one place might facilitate investment in the ITP sector, while at the same time another may issue a policy to remove ITPs; and one local government may at first push for the development of the ITP sector, only to curb its expansion later. So, why and when and at which level the state plays what kind of role within ITP expansion deserves systematic study.

So to identify and untangle the complementary and/or contradictory roles of 'the state' at various jurisdictional levels, taking the expansion of industrial tree plantations in Southern China as a case study, will provide specific insights into the working of the state within the process of capital accumulation. It will also open up an agenda for a more complex framework of the state in order to deepen an understanding of state and its role.

There are basically three frameworks to understand the state and its role in public policy, namely, "state-centric," "society-centric", and "interactive state-society" (Das 2007, Fox 1993). As already discussed in Chapter 1, the state-centric and society-centric perspectives cannot fully capture

the dynamics of the political process. This chapter will therefore take a look at the "interactive state-society" framework: an alternative framework put forward by several scholars, including Fox in the case of Mexico (1993), to understand the dynamic role of the state. This framework reveals the contradictory functions of the state, namely, facilitating capital accumulation and maintaining political legitimacy, which is not only valid in Mexico (Fox 1993), but also in China (Chen, Zinda, and Yeh 2017).

However, the state-society paradigm *per se*, which neglects the "nuances of intra-societal and intra-state variations" (Perry 1994, 709), cannot fully capture the competing jurisdictions following decentralization in China. As suggested by Oi (1995, 1147), "one should disaggregate the 'state' into its component parts to distinguish between levels of government and the incentives for different levels to perform". Similarly, O'Brien and Li (2004, 94) concluded: "what emerges is a state that is less a monolith than a hodgepodge of disparate actors, some of whom have multiple identities and conflicting interests. Disaggregating the Chinese state highlights its segmented, layered structure". This reminds us to disaggregate the multi-level state in order to get a better understanding of politics in rural China.

Echoing this, some studies noticed the layered bureaucratic system of the state. These studies fall mainly into two groups, namely, the competing approach and the cooperation approach. Under the competing approach, scholars view the local state not as the subordinated agent of the central state to implement the policy made at the higher level, but as an entity with divergent, even contradictory, interests. Within this trend, Oi (1995, 1139) found that local governments also have "entrepreneurial interests" rather than being the purely "agents of the central state". Similarly, Lu (1997, 130) observed the tensions/ conflicts between "the state" (central state) and "the state agents" (local state). More radically, So (2007, 560) used the framework of the "split state"- "one 'benign' centre and a 'predatory' local apparatus"- to analyse rural politics.

Meanwhile, scholars who adhere to the cooperation approach, believe that the central and local state share some common interests and mutually influence each other. Li (1997) believes that the central and provincial state are interdependent, and that conflicts and compromises between different layers lead to policy adjustments as part of the reform processes. Later, she explained decentralization as the central government's strategy to distinguish itself from the local state in order to find scapegoats on which to

"blame policy failures on implementation details and front-line state workers". (Li 2007, 95). Based on such a framework, Göbel (2011) recognized in the "uneven policy implementation" in different locations the "policy steering instruments" used in rural China; namely, "competition under hierarchy", and concluded that "both pioneers and resisters contribute to shaping the policy outcomes" (76).

Both of these approaches miss some critical points. The competing approach can help understand some divergences between the central and local state, while viewing the central and local state separately may fail to explain some local state actions which align themselves with the policies of higher authorities but might affect their revenue generation negatively. To give an example, some county governments, following of the lead given by the provincial government, issued policies to remove eucalyptus trees planted on farmland, despite the fact that the ITP sector contributes a large sum to local revenue. In this sense, the cooperation approach provides better insights with which to understand central-local state relations. However, it lacks discussions on the state-society paradigm and is thus not able to explain the changing attitude of the state across time.

To better understand the role of the state within the expansion of ITPs in a dynamic and relational way, this chapter applies the *interactive state-society* framework and considers the variegated but integrated intra-state variations, the so-called *coupled interactive* approach. This employs an "interactive state-society" framework to understand the role of the state, while at the same times utilizing the "cooperative" approach to understand central-local state dynamics.

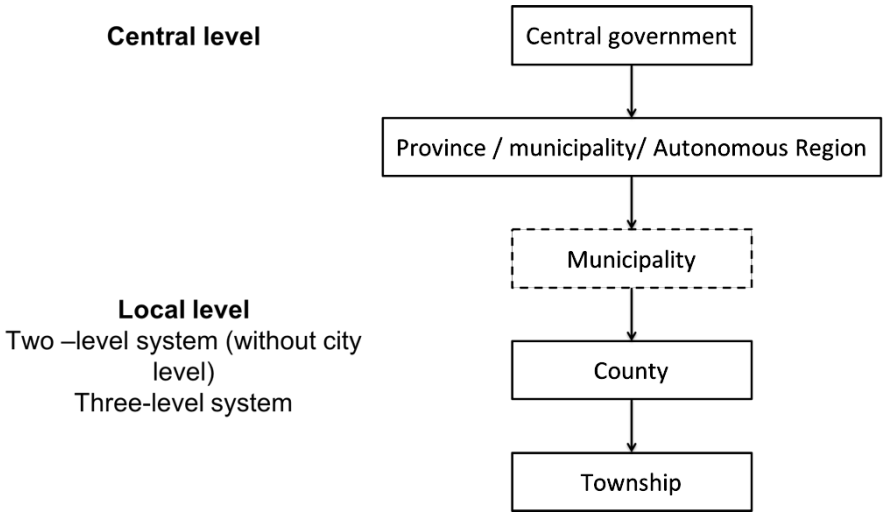
This chapter is structured as follows. The next part offers a preliminary introduction to China's hierarchical state framework. The third part analyses the coupled actions/reactions of the state at different levels - central, provincial, and local levels - related to the ITP sector. The fourth part explores the dynamic state's relationship with capital and society, and the change in its different developmental stages.

3.2 The state in rural China

China has a complicated administrative system – as shown in Figure 3.1. Between the central government where directives, laws and policies are made, and the township governments where the policies are implemented,

there are still two or three levels of administration. The politics and interactions between these levels are complex and dynamic, weaving a context that is key to understanding the political economy of the rise of the ITP sector.

Figure 3.1 *The bureaucracy*



Source: The figure is drawn based on information from the government's official website[1]

As already mentioned in Chapter 1, during the Reform and Open (*Gaige Kaifang*) era, the central government "loosened its control over local affairs…to promote local incentives" (So 2007, 564). With administrative and fiscal decentralization, local governments in rural areas (especially at the county and township level) were endowed with the power to control local revenues and reallocate resources (e.g. land, subsidized fertilizers) (Rozelle 1994).[2] Thus, decentralization enhanced the power of the local state.

However, this does not mean that local governments have enjoyed complete freedom since then. Local government cadres are required to sign contracts (which include administrative and economic targets for the whole year), and are supervised and assessed by government at the next

highest level under the cadre responsibility system (*Ganbu Zeren Zhi*) introduced in 1980s. Thus the local state became controlled by the central state via these assessments, which might bring rewards or punishments to local cadres, and, in the long run, affect their bureaucratic careers (EDIN 2003a, b). Furthermore, although local governments could keep part of their locally generated revenues after turning over the committed part to higher authorities, the local governments needed to cover their ever-increasing administrative expenditure with a steadily decreasing share of the revenue (Lu 1997, 125).[3] So, as discussed in Chapter 1, the local government levied heavy taxes and charges on villagers in order to supplement its insufficient revenue (Li 2003, Kennedy 2013, Lu 1997).[4] Later the local share of revenues further decreased with the "Tax for fee" reform introduced in 2002, which abolished all the local fees while reducing agriculture tax gradually until it was abolished entirely in 2006.[5] After this significant decline in revenue, the local governments (mainly at the township level) either became administrative shells with a limited ability to provide social services (Kennedy 2007, Oi et al. 2012), or started to lease land to compensate their losses from taxes and fees (Kennedy 2013, 1021, Ye 2015).

Embedded in such a decentralized state system is more control by the local state of resource distribution. This is thus always the focus of academic studies analysing capital accumulation (e.g. local state corporation and land revenue regime). Nevertheless, the central government and provincial government also play a role, as analysed next.

3.3 The role of the state within the rise of the ITP sector

The state plays a critical and complicated role within ITP expansion in Southern China: the policies introduced by the state directly or indirectly promote or impede the rise of the ITP sector; the state facilitates land acquisitions by investors in the ITP sector; the state issues the licences for forest/plantation logging. However, as already mentioned, the Chinese state is multi-layered. This means that the analysis of the state's role should be layered as well.

3.3.1 The central level: preparation of conditions

The central state is positioned at the top of the hierarchical structure to act as a planner, commander, and coordinator, using both coercion and incentives. The policies or directives issued by the central state were always

general and vague, but actually paved the way for the development of the ITP sector - technologically, legitimately, and economically.

The emergence of the ITP sector in Southern China was initiated by the introduction of fast-growing eucalyptus tree species as part of technological cooperation projects between the Chinese central government and the Austrian government which started in 1981.[6] Within this collaboration project, Dongmen forest farm, a state-owned farm in Guangxi, was chosen as the experimental spot, making it the largest gene pool of eucalyptus tree crops throughout Asia and the biggest research centre for eucalyptus trees in China.[7]

However, this technological basis is not enough to account for the rise of the ITP sector. The national policies around the opening up of the forestry market and classified forest (/plantation) management, gave legitimacy to the commercial development of forestry in Southern China.[8] The *National NO1 Document* in 1985 eliminated the central state's control of the purchase and distribution of most agro-products, including wood-based products. This freed up the forestry market and legalized individual investment in forestry, including the ITP sector. Under the classification proposed by the national state, in 1988 several southern provinces, including Guangxi, were chosen as key provinces to promote fast-wood plantations in order to build up the timber reserve production base to ensure national timber security.[9] China's 2005 regional forestry plan clearly pointed out that the forests/plantations in the southern part of the country are mainly for commercial use rather than conservation, as is the case in the northern, western, and eastern forests/plantations.[10] This liberation of the commercial forestry market in Southern China enabled the massive rate ITP expansion there, especially when incentives were attached.

The economical drivers came from the forestry tax reforms and reforestation regulations issued by the central state. Specifically, the tax on forestry products was reduced, especially after the tax reform of 1994. And following the *Law of the PRC on Enterprise Income Tax* in 2007[11], income earned by corporations from forestry either faced reduced, or was completely exempt from, tax. The government's reforestation plan, which started formally in 2002, is a highly subsidized programme funded by the central government aimed at environmental protection. In the programme, rural households which transform sloped, sandy, rocky or salty farmland (back) to forestland, became eligible for monetary and rice subsidies. It is worth noting that in Guangxi this programme was combined

with other promotional projects such as the fast-wood plantation project by the provincial and county governments (as will be explained in more detail in the next part). These policies, in essence, economically fuelled the expansion of ITPs in Southern China.

However, besides these pushing forces, the central state also placed some obstacles in the way of the forestry industry. One of the most significant of these is logging control management, which, to avoid excessive deforestation, requires individuals/ companies to apply for permits from the local state (usually the forestry departments at the county level) before logging.

In addition, the state's strong intervention in some other boom crops in Guangxi (e.g. sugarcane for national sugar security) is also, indirectly, associated with the development of the ITP sector. Taking sugarcane as an example, the Chinese state on the one hand has strict control over the sugar market, through import quotas, tariffs,[12] and the national strategical reserve.[13] On the other hand, the Chinese state tries to boost the domestic sugarcane production via a series of directives on the provision of various subsidies.[14] The state's direct support for sugarcane production inevitably affects villagers' decision on land-use, which then has a greater or lesser impact on the expansion of the ITP sector.

These policies/directives are to a greater or lesser degree relevant to the development of the ITP sector in Guangxi. But the policies / directives are mostly broad and ambiguous, and sometimes not directly linked to the ITP sector. Furthermore, the tax on the ITP sector in Guangxi is not directly collected by the central state, thereby providing the central state with less incentive to get involved in this accumulation process. Thus, the eucalyptus boom is more related to the manipulations of the state at lower levels.

3.3.2 The provincial level

The province forms the middle level of the state hierarchy. For the counties and townships, the provincial government represents the centre of policy enforcement; while for the central government, the provincial government represents regional differences, and as such is always the unit that makes, implements, and assess targeted policies. At the provincial level, the intervention of the Guangxi government in and around ITP expansion was more direct, acting as it did as a project coordinator, a land broker and a shareholder.

As project coordinator, at the beginning of ITP expansion, the provincial government pushed the development of the ITP sector by mobilizing funds from the central state and international organizations (e.g. the World Bank). Within the context of the reforestation project that started in 2001 onwards, the Guangxi government chose the fast-growing eucalyptus tree as the main recommended tree crop, providing subsidies and free seeds. Alongside the funds from central government, the Guangxi government also used loans received from the World Bank since 1999 to establish ITPs in cooperative projects, aiming to develop forestry, conserve the environment (reduce carbon emissions), and/or reduce poverty. Because of this cooperation with the World Bank, the Guangxi Forestry Department successfully facilitated the ITP sector through loan allocation, technical support, and infrastructure construction with the close involvement of county governments, state farms, and "large households" (*Da Hu*)[15], leading to the massive and rapid expansion of ITPs.[16]

In addition, the Forestry Department of Guangxi Zhuang Autonomous Region also played the role of broker to help investors gain access to land. This can be encapsulated in the land acquisition process of foreign companies, as will be discussed in Chapter 4. For Stora Enso, more than 60,000 ha of its forestland was transferred through *Guangxi Forestry Group* - a state-backed company founded by the Guangxi Forestry Department - from eight state-owned forest farms with an annual rent much lower than the market price.

Moreover, the provincial government is directly involved in investment in the ITP sector as a shareholder. 15% of the shares in Stora Enso Guangxi[17] belong to Guangxi Guihai Co. Ltd, a sub-corporation of *Guangxi Forestry Group*. This is because, according to Chinese law, transnational company (TNC)-driven land investment must be carried out as a joint venture with domestic capital. This can be understood in two ways: on the one hand it is a signal that state capital has allied with foreign capital in the accumulation process; on the other hand it is a way for the state to control and monitor foreign investments.

However, while deeply involved in the rise of the ITP sector, the Guangxi provincial government also strongly promotes the sugarcane sector in response to the central state's policy on national sugar security as mentioned above. The Guangxi government not only provides a series of subsidies under the "double high" programme,[18] but also issues a directive on the price of sugarcane every year to encourage sugarcane production.

These actions affect villagers' decisions in relation to land-use, as will be analysis in Chapter 5, and further complicate the conditions and trajectory of the ITP sector.

In short, although the promotion by the provincial government of the ITP sector is aimed at capital accumulation (or "economic development" as claimed by a few state actors), and might include rent-seeking, the role of the Guangxi government is more a subordinated administrative agent rather than a profit-seeking entrepreneur. Firstly, the prime motivation of the Guangxi government to promote the ITP sector is to fulfil the targets/tasks allocated to it by the central state in relation to the reforestation and fast-wood project. Secondly, facilitating foreign companies to get access to land involves, on the one hand, attracting foreign investments, which was consistent with the central state's strategic plan at that time. On the other hand, acting as a land acquisition broker did not originate from the Guangxi government, but was more or less one of the requirements made by investors to enable them to gain social legitimacy and reduce conflicts. And it is the *Guangxi Forestry Group* and the state farms rather than the government itself that is directly involved in the land access process and might gain profit from it. However, the relationship between the state and state-owned companies (*Guangxi Forestry Group* and state forest farms in this case) deserves further exploration.

3.3.3 The local level

Zooming down to the bottom layer of the bureaucracy, the attitudes of the county and township governments towards the ITP sector are variegated, even when faced with similar institutional arrangements at higher state levels. As some township governments have recently become mere "shells", as mentioned above, the county-level state will form the focus of this analysis.

When the provincial state started to strongly promote the ITP sector, several counties responded actively. Some encouraged cadres to take the lead in investing in the ITP sector. They encouraged the cadres with a series of preferential policies, including free seeds, rewards, and priority at logging times. Because of these policies, a large number of local cadres, as well as their relatives, became planters. However, some of the cadres saw this as a political task and did not, at first, expect much profit from the ITP sector. This is illustrated by an official who works in the county Forestry Department: "it is mobilized by the government" (Field notes 19

March 2015). The cadres leased land, usually at a large scale, from collectives at a very low price due to the under-development of forestland at that time. These cadres, thus, identify as entrepreneurs as well as bureaucrats.

Later, in the light of the preferential conditions introduced by county governments to attract investments from big giants like Stora Enso, APP, and state forest farms, some of these cadres were required to transfer the land they owned to these lager investors to provide them with a production base for raw materials. As explained by an employee of the county government who leased 4000 mu ITPs cooperatively run by him and his friends to Stora Enso: "it is really a loss. But (it is) mobilized by the government)… every county has tasks (about the quantity of land leased)" (Field notes, 17 March 2015). The county-level state also facilitated the access to land for these big investors through direct and indirect coordination with village collectives, sometimes even intervening as middlemen.

Meanwhile, to attract investment, several local governments cut some of the forestry taxes paid by investors, especially foreign investors. In a report in *21st Century Business Herald*, an official from Qinzhou municipality told the journalist that in order to support APP, the Qinzhou government made a special offer to the company, with big reductions in forestry taxes and fees, "if (we) calculate the hectares of raw material bases (ITPs) as 500 thousand mu, and the reduced amount of taxes and fees as 20 Yuan, then (APP) is estimated to be exempt from at least 10 million Yuan of taxes and fees". [19]

In addition, in order to develop the ITP sector, some county governments invested in infrastructure construction, and a few even built timber processing industrial parks or timber logistics and distribution centres to attract ITP investors through the agglomeration of its downstream industrial chain. To give an example, the Da Huanghou timber processing industrial park in Wuming County was constructed by the local Forestry Department (see Figure 3.2). As explained by an official there, "There are both bosses from local areas and from other provinces, like Jjiangsu, Zhejiang and Guangdong...They put all these mills together. This makes it easier to manage." (Field notes, 13 April 2015). The existence of these parks/centres not only increased the cultivation of eucalyptus trees in the area, but also increased the taxes that could be levelled by the local state.

Figure 3.2 *Da Huanghou timber processing industrial park in Wuming County*

Source: The photo was taken on 13 April 2015.

There are two reasons for such active promotion of the ITP sector by county governments. Firstly, county government cadres or their relatives/ close friends are incorporated and benefit from the ITP sector. Secondly, big paper-pulp companies or processing factories/mills are built locally, which can contribute to local revenue generation, as planting eucalyptus trees *per se* is not taxed.

When neither of these conditions is met, the county governments are less vigorous. There are also several county governments with other priorities, for example, sugarcane and ecotourism. These county governments do not provide any additional benefits to ITP investors/ planters, except for those coming from central and provincial governments, while they do introduce preferential policies aimed at their targeted sectors. Take the county governments which promote the sugarcane sector for example. In order to support local sugarcane production, these county governments not only utilized a series of regular instruments, including the provision subsidies for improved breeds and investment in the infrastructure (flattening sloped land, irrigation systems, and road construction), but also introduced unique planned economic regimes into the sugarcane market to ensure a stable production volume and sufficient supply of raw materials for each sugar company: they controlled the price of sugarcane by dividing sugarcane production zones and regulating that sugarcane producers within one zone could only sell their products to one specific sugar company. Thus these counties guaranteed national sugar security, and, more importantly, protected sugar companies which are traditionally big taxpayers and contribute more than half of local revenues. As explained by an interviewee who works in a county government where the sugarcane sector is strongly promoted: "When the yield of sugarcane increases, it is good, as the tax increases. The other (crops) do not bring in any tax or fees." (Field notes, 9 March 2015).

In this sense, the county governments responded differently to the policies issued at provincial level around the ITP sector. Although all county governments are limited by the framework set by higher authorities, some county governments strongly promoted the development of the ITP sector, while others paid it less attention. Their varying attitudes, based on the same desire to facilitate local capital accumulation, resulted in the distinct trajectories in the development of the ITP sector in different countries.

Following the analysis above, it is clear that the role of the state is critical within the expansion of the ITP sector. The different attitudes of the state, especially the local state, resulted in the uneven geographic distribution of ITPs in China. Meanwhile, using different instruments, the state shaped the social relations around the sector. Due to state intervention, some investors (including a few villagers) were able to gain access to land and even benefit from the ITP sector, while other villagers lost control over the land and/or became more vulnerable as the ITP sector grew. In other words, the state facilitated the active inclusion and the active exclusion of certain groups, which led to the passive exclusion and adverse incorporation of others.

3.4 State-society interaction

Within this process, the state also played a critical role in shaping villagers' agency and affecting their further livelihood strategies. When the state facilitates accumulation by large-scale investors, smallholders can easily be dispossessed and lose part or even all of their livelihood, an example being Brazil (Kröger 2012). When the state supports smallholders, some villagers might be able to adapt and even expand their livelihoods, an example being Vietnam (Sikor 2012). As one of the vital factors that might shape villagers' actions, the role of the state could partly explain why the livelihood responses of Guangxi villagers towards the expansion of eucalyptus trees (as will be analysed in Chapter 5) are different from those of villagers in some other countries.

In Guangxi, the role of the state in shaping villagers' livelihood choices was two-sided. On the one hand, it was the state in Guangxi that introduced the ITP sector to the area and helped capitalists get access to land. On the other hand, the state also enhanced the competitive power of some villagers in their competition with large-scale capitalist counterparts (see Chapter 5). So, with the rise of the ITP sector in Guangxi, state intervention lead to the loss of livelihood sources for some villagers, while it enhanced the livelihood resilience of some others.

Furthermore as will be discussed in Chapter 6, the villagers were also affected differently by the massive land control and land-use changes. Based on their specific interests related to their actual position within the ITP sector value chain, the affected villagers had distinct political reactions: some embraced the sector while others conducted various forms of resistance, either overt or covert and directed against various actors.

3.4.1 The state and political reactions from below

In terms of political reactions from below, the state has a very critical and complicated role. On the one hand, the state, especially the local state, is the actor against which villagers resist (So 2007). This resistance is usually related to the state's role in facilitating land grabs, which can lead to the expulsion or dispossession of villagers (Borras and Franco 2013, Wolford et al. 2013, Borras et al. 2012). In the case of Guangxi, some county governments acted as brokers to help big investors (e.g. Stora Enso) get access to land to build ITPs. Moreover, state-owned farms and even some cadres (or their relatives) were directly involved in large-scale land acquisitions for ITPs. This occasionally resulted in state actors (mainly local state actors) being sued by some affected villagers for illegal land expropriation under "rightful resistance".

On the other hand, the state sometimes facilitates and even fosters villagers' resistance based on its dual functions as suggested by Fox (1993), namely, facilitating capital accumulation, and maintaining political legitimacy. This is also the case in rural Guangxi. Faced with villagers' resistance to the expansion of ITPs, the local state sometimes connived in these actions. As described by a staff member from a state-owned farm:

> Recently, villagers' land encroachment has been very serious. Towards such illegal phenomena, the government usually turns a blind eye… We used to catch villagers' (illegal behaviour) at the scene and sue them. The judgment was then that the land belonged to the state-owned farm and was illegally occupied by villagers. The state (staff) said that this land plot certainly belonged to the state. But (he or she) did not support us in getting the land back, as using coercion to regain the land would lead to resistance. Finally, villagers went to the state petition (shangfang). So (the land) is stuck in the "bogged" status. The state just *Da Tai Ji* (which means to pass the buck). (The state) says it supports us, but in the end it has to consider general interests. (Field notes, 10 March 2015)

In this sense, the role of the state is contradictory. It further complicates the trajectory of the villagers' political reactions.

3.4.2 Changes in the role of the state

A large number of these distinct political reactions were aimed at opposing the development of the ITP sector, due to the land control change or/and the negative environmental impacts caused by the sector. Faced with such ever-increasing resistance against the development of the ITP sector, the

provincial state put a brake on the rapid expansion of eucalyptus tree plantations[20]. According to the Notice issued by the Forestry Department of Guangxi in December 2014[21], the Guangxi government planned to decrease the area of eucalyptus tree plantation by 4 million mu by 2020. 75% (320 mu) of this decrease should be accounted for by changing the forest structure from mono-cropping to mixed forests, and 25% (80 mu) by the removal of eucalyptus tree plantations from basic farmland plots near the side of the road and in reservation areas. With guidelines set by the provincial government, the state farms, as state-owned organizations under the direct control of the provincial state, were required to substitute eucalyptus tree plantations with other tree crops after the following harvest, and several counties also introduced corresponding policies to restrict the development of eucalyptus trees.

This shift of the attitude of the provincial state aligns, on the one hand, with the central state's keen promotion of "ecological civilization" which started in 2012 (as mentioned in Chapter 1). On the other hand, it reflects the dual function of the state, as suggested by Fox (1993) - facilitating capital accumulation along with maintaining political legitimacy. The Guangxi government supported the development of eucalyptus trees, thereby pushing for capital accumulation. Once social stability was threatened, the provincial state issued a policy to restrict the development of the eucalyptus tree sector, despite the fact that it was profitable and could contribute a lot to regional revenue.

When the provincial government adjusted its policy direction and planned to slow down the expansion of the ITP sector, the state-owned farms reacted rapidly. According to my fieldwork in Guangxi in 2014, one state-own farm had already begun to burn down the eucalyptus trees that did not grow well, and then planted pine trees and Castanopsis hystrix trees (as shown in Figure 3.3). As explained by a staff member from one of the state-owned farms in Guangxi, "According the Guangxi Forestry Department's plan, the planted plantations should be diversified" (Field notes, 18 March 2014).

Figure 3.3 *The newly planted pine trees and Castanopsis hystrix trees on the forestland of a state-owned farm*

Source: The photo was taken on 18 March 2014.

Meanwhile, county governments with other priorities also actively responded. They issued policies to restrict ITPs, and set targets to remove eucalyptus trees step by step: first, with the active involvement of local cadres and based on state policies, they enforced the removal of eucalyptus trees planted on farmland; then they enforced the gradual removal of eucalyptus trees planted in other areas until it was totally removed. During my fieldwork in Guangxi in 2014, some county governments had already organized actions to remove eucalyptus trees planted on farmland. As explained by a village cadre in Guangxi:

> The county government required staff from the township government to come to villages to act together (with us). Firstly, (we) informed the planters and asked them to remove the trees (planted on the farmland) by themselves. If they did not do so by themselves, then we would do so. (Field notes, 8th April 2015)

By limiting the development of ITPs, these county governments actually covertly supported some other sectors (e.g. sugarcane and ecotourism). However, these county governments also had to consider social stability, if only minimally, when removing eucalyptus trees. To give an

empirical example, they left the trees nearing harvest (less than 1 year before logging) rather than radically pulling up all the trees (see Case 8 mentioned in Chapter 1).

Even those counties which had originally promoted ITPs also supported this policy of curbing eucalyptus expansion. These county governments also organized activities to pull up eucalyptus trees planted on farmland but, in contrast to those counties which had always resisted ITPs, they limited the removal to eucalyptus tree occupying farmland, and they stressed that they did not plan to utterly eliminate eucalyptus trees, but wanted only to adjust the forest structure gradually in specific areas. Their mild response can, on the one hand, be understood as compliance with the policy issued at a higher level. On the other hand, their actions did not hurt the interests' of big investors who owned large-scale contiguous forestland but did reduce competition from small-scale planters. In this sense, these local governments were actually protecting large-scale investments in the ITP sector as the main source of local revenue. In addition, in several counties, especially those in which there are many eucalyptus processing factories/ mills, to date the local state has not given any response to the restriction policy.

These different responses by the local state show that local governments fall in line with policies from above, though sometimes only superficially. More importantly, the various responses imply that policies at higher state levels leave some space for the local state to manipulate them in accordance with their own interests. Because, after all, a certain percentage of local revenue is paid to higher authorities which have economic development as a key concern.

3.5 Further discussion

As summarized in Table 3.1, the actions/reactions of the state at various levels - especially the provincial and local levels - towards the ITP sector can vary across time and space. For a better understanding of the role of the Chinese state, here are three analytical points that I want to highlight.

Firstly, the state strongly intervened in the development of the ITP sector in Southern China using both economic and extra-economic instruments, including introducing specific laws/polices, issuing logging permits, providing subsidies (in the forms of cash, rice, free seeds, and fertilizers), investing in infrastructure, coordinating land acquisitions, and

enforcing the curbing of ITPs. Within the steering process, as observed by Wolford et al. (2013, 204), the state gradually moved from "the direct developmental role" to becoming an indirect facilitator (e.g. a broker or a subsidy provider) in the process of capital accumulation, although some state actors might utilize coercion (not necessarily with force).

***Table 3.1** The variegated attitudes of the local state towards the ITP sector*

Provincial state	*County governments promoting ITP*	*County governments with other priorities*
Strongly promote the ITP sector	Encourage cadres to take the lead to invest in the ITP sector; Help big investors get access to land; Invest in infrastructure construction	Provide no additional benefits to ITP investors/ planters; Introduce preferential policies for their targeted sectors (e.g. sugarcane or ecotourism)
Curb the expansion of the ITP sector	Organize movements to pull up eucalyptus trees planted on farmland (limited to eucalyptus trees occupying farmland); Have not given any response	Respond rapidly; Enforce the remove of eucalyptus trees occupying farmland; Plan to remove the eucalyptus planted in other areas gradually until the full remove of this tree crop.

Source: Author's elaboration.

Secondly, the central and local states in China are not really split, but coupled in a particular way. Specifically, higher government levels (the central and provincial level) always issue broad and ambiguous policies, which usually leave space for the local state (at the county and township levels) to manipulate them as they share some common interests (e.g. revenue generation). So, the local governments across space might introduce distinct policies, but all within the range set by higher authorities.

Thirdly, the shift in state attitudes is mainly because of its struggle in balancing its contradictory functions, namely, capital accumulation and political legitimacy. As Borras and Franco (2013, 1729-1730) illustrated, the state will apply brakes "when the character and extent of accumulation and dispossession processes threaten the legitimacy of the state". Moreover, based on the analysis of the layered structure of the Chinese state, higher level governments tend to be more sensitive to resistance from below, while the actions of the local state are more aligned with economic

development targets. This does not mean, however, that local governments have no interest in social stability.

Interacting with the complicated roles played by Chinese state, corporations, in particular foreign ones, play a key role within the rise of the ITP sector. In the next chapter, I discuss why and how foreign companies get involved in the ITP sector.

Notes

[1] http://www.china.com.cn/ch-zhengzhi/zhengzhi6.htm accessed on 19 January 2017.

[2] The fiscal system of the central and local government was separated, underlying the decentralized system – something that is metaphorically called "serving meals to different diners from different pots". (http://news.xinhuanet.com/theory/2008-12/18/content_10522035.htm accessed on 19 January 2017).

[3] The local share became even smaller after the financial reform enacted in 1994 (https://zh.wikipedia.org/wiki/%E4%B8%AD%E5%9B%BD1994%E5%B9%B4%E7%A8%8E%E5%88%B6%E6%94%B9%E9%9D%A9 accessed on 19 January 2017).

[4] Except for regular agriculture tax, peasants still had to pay fees and charges called "five tongshou three tiliu.".

[5]http://zh.wikipedia.org/wiki/%E5%86%9C%E6%9D%91%E7%A8%8E%E8%B4%B9%E6%94%B9%E9%9D%A9, http://www.gov.cn/test/2006-03/06/content_219801.htm accessed on 19 January 2017.

[6] http://news.xinhuanet.com/world/2007-08/28/content_6614213.htm accessed on 19 January 2017.

[7] http://dmlcsl.forestry.gov.cn/6186/55552.html accessed on 19 January 2017

[8] In China, forestry (*linye*) include both natural forest and manmade plantation sectors.

[9] http://www.forestry.gov.cn/portal/sfb/s/861/content-302942.html accessed on 19 January 2017.

[10] http://people.com.cn/GB/paper85/15907/1406021.html accessed on 19 January 2017.

[11] http://www.gov.cn/flfg/2007-03/19/content_554243.htm accessed on 19 January 2017.

[12] For more detailed policies on the management of sugar imports, see Borras et al (2017, 10) and Zhang and Zhao (2009).

[13] The Chinese national sugar reserve was founded in 1991. It effectively ensures state macro-control over sugar for national sugar security. When the sugar price is low, the state will purchase and store sugar in the national reserve. When the price is high, the reserved sugar will be sold to stabilize the market. In this way, the gap between supply and demand is mediated. (For a more detailed explanation of the mechanism of the national sugar reserve, see http://www.ynsugar.com/Article/TYZL/200609/103.html, accessed on 29 January 2018).

[14] The subsidies are mainly for seeds, machinery and fertilizer and reflect the state' s promotion of industrialized production. (Development Plan of Sugarcane Prod uction, 2015-2020, http://www.ndrc.gov.cn/zcfb/zcfbtz/201506/W020150604323728878521.pdf, accessed on 29 January 2018).

[15] Da Hu refers to rural elite households with wealth, land and/or social status.

[16] The area of the newly established ITPs under this project was as large as 200,000 ha from 2006 to 2012, according to the document from the World Bank (http://www.worldbank.org/projects/P087318/guangxi-integrated-forestry-development-conservation-project?lang=en accessed on 19 January 2017).

[17] http://www.sdpc.gov.cn/zcfb/zcfbtz/201406/t20140609_614572.html accessed on 19 January 2017.

[18] The "double high" programme is intended to increase both the yield and the sugar content during the production. For more details on this, see Borras et al (2017, 5).

[19] http://finance.sina.com.cn/chanjing/b/20070915/12133981933.shtml, accessed on 5 October 2017.

[20] As the central state will require the provincial government to deal with this resistance.

[21] http://www.dgslc.com.cn/uploadfile/2014/1224/20141224113215456.pdf, accessed on 18 January 2017.

4 Chapter 4: Foreign investments and their land access in the Industrial Tree Plantation Sector[1]

4.1 Introduction

The scenario created by foreign land investments in the ITP sector in Southern China raises a series of questions: Why are these foreign investors interested in investing in China when there are a few other "land host" countries that would provide easier and cheaper land access? Why would the Chinese state and Chinese investors open up their own land resources to foreign capital in the ITP sector while also going abroad to seek control of land resources? How did foreign companies get access to land in rural Guangxi? To answer these questions, this chapter explores the drivers and mechanisms of foreign land investments in Southern China.

By focusing on the land investments dominated by two foreign land investors, this chapter contributes to a more refined picture of global land politics. It returns to a critical argument, which has been long overlooked in the discussion on global land politics: namely, capital accumulation is principally interested in geographic places and settings where it can generate profit. Furthermore, the exploration of land access by foreign investors can be used to show the diverse channels of land control change under the institutional and social structures in China, although there might be nuances to the land investments dominated by other actors (including

state-owned farms, domestic private enterprisers, entrepreneurs and individual villagers), in terms of scale, power dynamics, production processes, and corresponding results.

The remainder of this chapter is organized as follows: the next section discusses certain empirical issues related to foreign capital involvement in the ITP sector and narratives about the role of China within the current global land rush; the third section presents and examines empirical issues in relation to two foreign investors and Chinese policies (why China? Why foreign investors?); and based on this, the fourth section explores the mechanisms of foreign investor land access (how do they gain access to land?).

4.2 Background: the rise of the ITP sector and foreign land-based investments in China

As already mentioned in both Chapter 1 and Chapter 2, compared to the food, fuel/biofuel, and mining sectors, the ITP sector has particular characteristics that attract investors. In the first place, the ITP sector involves fast-growing trees and thus ensures quick returns on investment. Secondly, it involves multiple end uses, which can enhance the resilience of investors under volatile markets.

Investors in eucalyptus ITPs in China are mainly interested in the production of paper and wood-based board. This economic attractiveness makes China one of the dominant producers of industrial trees in the world. The industrial tree plantation sector in China has expanded dramatically since 2000. The plantations are concentrated in the southern part of China, especially in Guangxi province, where both domestic and international investors are involved.

Stora Enso and APP have received a lot of public attention as major land holders, although they are not the only two foreign companies that are involved in land-based investments in China.[2] Both of these investors are worldwide paper giants with large production and sales portfolios. Stora Enso specializes in the production and global sale of a series of tree-based products, including consumer board, packaging solutions, biomaterials, wood products, and paper (StoraEnso 2016a, 24). Stora Enso has mills/factories in South America (Brazil and Uruguay), the United States, Europe, Russia and Asia (China and Pakistan), either through joint

ventures or as a single owner (StoraEnso 2016a, 5). It owns around 4 million ha of tree plantations in Sweden, Finland, Uruguay, Brazil, Estonia, Romania, Latvia, Russia, China and Laos,[3] either through purchase or lease (StoraEnso 2016b, 49). APP is a subsidiary of Sinar Mas Group[4], and focuses on pulp and paper production targeted at the global market.[5] Its production sites are concentrated in Indonesia and China, with nine mills and 2,600,000 ha tree plantations in Indonesia and over 20 mills and 300,000 ha plantations in China (APP 2015, 12-14,47, APP-China 2015, 7,30).

APP and Stora Enso were originally motivated to enter the Chinese market because of the huge demands for paper-pulp products in China due to the country's fast urbanization rate and remarkable population growth (Field notes, 20-21 March 2014). Later, both companies became involved in the 'Plantation-Pulp-Paper integration' (*Linjiangzhi Yitihua*) project. As shown in Table 4.1, APP started its land investments in Guangxi in 1995 and Stora Enso 2002. Both these companies have obtained incredibly large tracts of land. The number of ITPs controlled by Stora Enso had reached 82.26 thousand ha by 2015, while APP controlled around 100 thousand ha. At the same time, capital involved in their integration projects (including building pulp mills) is extensive, with 12.8 billion Yuan in the Stora Enso case and 40 billion Yuan in the APP case.

***Table 4.1** Two main foreign investors in Guangxi*

Name	Nationality of the company	Started year	Investment (billion Yuan)	ITP scale (1000 ha)		
				State land	Social land	Total area
Stora Enso	Finnish	2002	12.8	53.18	33.08	86.26
APP	Indonesian	1995	40.0	0	106.67	106.67

Source: StoraEnso (2016a) and Liu (2010b)

Foreign investors have thus acquired land inside China. This challenges the narratives about the role of China in current global land rush. China is a highly visible player, with land-based investments in distinct regions around the world, from Southeast Asia to Africa to Latin America (GRAIN 2008, Cotula 2012). The literature tends to treat such large-scale

land acquisitions by Chinese firms as actions dominated, or at least facilitated, by the Chinese government as part of its "going out" policy to achieve domestic food security - or, to put it more directly, to seek "new rice bowls" (Horta 2009, Zoomers 2010). However, various Chinese investors are commonly and indistinctly labelled as "Chinese" in the public media and literature, even though the Chinese state, state-owned companies, private companies, and individual entrepreneurs have different forms, goals, and strategies in their land-based investments. Some scholars have also pointed out that China's role in land grabbing might be overstated and misunderstood, particularly in Africa (Hofman and Ho 2012, Brautigam and Zhang 2013). In reality, many of these projects do not go beyond the stage of official announcements, after which they are suspended or terminated due to social resistance in the host country or various other economic, political, or legal issues.

Meanwhile, China is taking the lead in importing some key agro-products. According to FAO data, China was responsible for 63.6% of global soybean exports, and 51% of the world's oilseed trade in 2013.[6] Given the flexibility of certain crops, China strategically imports agro-products to fulfil the ever-increasing domestic demands of its large population - not only for food, but also for feed and fuel (Borras et al. 2016, Alonso-Fradejas et al. 2016, Oliveira and Schneider 2016). For the main exporting countries/regions (e.g. South America), producing a large quantity of given crops for export is usually associated with crop booms and changes in land-use, land control, and production modes, which have significant impacts on the local population (Borras and Franco 2012, Hall 2011).

In current academic papers and public reports, therefore, China is framed either as a key "grabber", or as a main site for agro-product consumption - but not as a destination for transnational large-scale land deals. There are a few studies emerging on Chinese land expropriation or land appropriation for urban construction within the massive literature on Chinese land transfer, but these largely focus on domestic actors (Siciliano 2014, 2013, Ye 2015). This set of the literature misses the fact that there are land deals inside China that involve foreign investors.

Prior to the detailed analysis of these foreign companies' land access, the next part of this thesis discusses why these paper-pulp company choose to enter the Chinese market and to get involved in land-based investments rather simply controlling the processing link, and why the Chinese state allows foreign investment in the ITP sector.

4.3 Drivers of foreign investments in the ITP sector

Why did these two paper-pulp companies choose to invest in the land-based ITP sector in China? Staff from both companies mentioned the lack of profitability of the ITP sector. Huang Dingwen, the vice manager of APP-China forestry, stated to a *China Business Network* journalist that "it is very difficult to make a profit from planting trees. To market the ITP sector, the support of the paper industry towards the ITP sector is needed."[7]

Similarly, one employee of a foreign company explained:

> The raw materials we need are planted by ourselves. So (we can) reduce the use of natural forests. It is not related to the issue of cost. Actually, we do not make money from planting trees. Because, compared with ordinary villagers and forest farms, we need to be more socially responsible. Our company did not officially say that we do not gain profit (from ITPs), but I know that it (referring to the foreign company) does not care too much about profit here. (Field notes 19 March 2015)

However, in practice, these foreign companies' land investments can reap benefits in at least three ways. First, constructing human-made plantations is championed as reforestation, which is used by the investors as a strategic response to public criticism of their negative environmental impact. Second, as paper-pulp corporations, direct control over the ITP sector can secure a sufficient and stable supply of raw materials. Third, because of the multiple end uses of the outputs, control over the outputs can bring additional profits.

4.3.1 A response to public criticism

Paper-pulp companies have always been criticized by the public worldwide, including China, for their extractive activities and for polluting the environment. Japan's Oji Paper Company faced a large-scale protest in Qidong City in China in 2012 for its planned water discharge project[8]. APP was criticized and faced a protest by Greenpeace and other NGOs for illegal logging and destroying natural forests in Indonesia and in the Yunnan and Hainan provinces of China in 2004.[9] To respond to such critics, APP and Stora Enso both coincidentally use the discourse of tree plantations:

> "Use our paper, we plant more trees"--APP logo[10]
>
> "Plant trees and forests to benefit nature, make pulp and paper to benefit people"--APP-China[11]

> "The forest and forestry industry are part of the solution to the climate problem." -- StoraEnso (2016a, 11)

These quotes clearly show that both companies claim that the tree plantation programme is a testament to their social responsibility commitments, and that such activity is eco-friendly rather than extractive. According to this carefully constructed business logic, the promotion of ITPs not only reduces the use of nature, but also repairs it. In this sense, foreign land investments in Guangxi can be viewed as an adapted version of "green grabbing": on the one hand, the "moral weight of a discursively-constructed global green agenda legitimizes the appropriation of land and resources" (Fairhead, Leach, and Scoones 2012, 251); and on the other, these so-called 'green' land-based investments in turn legitimize accumulation by investors in the host country. However, as I witnessed in the field, affected villagers roundly criticize ITPs as having significant negative environmental impacts due to the sector's high demand for water and nutrition.

4.3.2 Control of raw materials

Furthermore, for these paper-pulp companies, control over ITPs also means control over the raw materials for their products. As explained by an employee of one foreign company:

> If a pulp mill has been set up, (the supply from our existing ITPs) is not enough. (We will) need more (trees). The original plan was to build over 2 million mu (of ITPs in Guangxi). This was very difficult (to realize). Even if we wanted to purchase (the trees at that time), it still depended on whether others (who own the trees) wanted to sell. The price then became very high. It was too risky (Field notes 19 March 2015).

This implies that the investments might not be aimed at direct profit extracted from the ITP sector, but at the control of raw materials for paper/paperboard production. This was similarly summarized by White et al. (2012, 621): "the purpose of the great majority of corporate land grabs is to establish agricultural production (or other forms of extraction such as mining) on a large-scale, and to guarantee access to its products."

As shown in Figure 2.4 in Chapter 2, the imported volume of pulp kept increasing, from 0.43 million tonnes in 1980, to 16 million tonnes in 2013. This accounts for a large part of the total supply of pulp in China. The

increasing dependence on the import of paper pulps illustrates the increasing shortage of supply of raw materials for paper production in China. It implies a possible increased value of ITPs. Therefore, for these international paper-pulp companies, while investments in the ITP sector might not be profitable in the short run, the expansion of the value chain can secure a stable supply of raw materials, which, in the long run, will reduce costs and unpredictable risks.

4.3.3 Additional gains from multiple uses of the ITP sector

Moreover, control of ITPs can bring additional economic gains because usually only small tree branches are used for paper production. It was observed that both of the foreign investors sell eucalyptus tree trunks, especially those with a diameter over 8 cm, to timber processing mills for the production of wood-based panels, which have recently become more profitable due to a huge domestic demand caused by the rise of the real estate sector. According to one villager who was hired by APP to transport eucalyptus trees, APP sells part of their timber products this way: "big ones are carried to Wuming (the timber processing industrial park in Wuming County in Guangxi), and small ones are cut off and transported to the factory in Qinzhou." (Field notes, 20 March 2016). Similarly, Stora Enso also sells their wide girthed timber on a Chinese online platform.[12] Although there is no data available to assess whether the benefits of such sales have reduced or expanded the costs of these companies' land-based investments, selling surplus outputs indicates that the control of ITPs provides opportunities for investors to maximize their profits through simultaneous and selective benefits from the multiple uses of eucalyptus trees. Furthermore, it implies a possible flexing use of the crop, which enables investors to reduce the risk and uncertainty of volatile markets.

In short, the three main reasons for foreign companies to invest in land in China are to gain social legitimacy, to access raw materials, and to control multiple uses.[13] The first two points are related to the maintenance of their profitable paper-pulp business in China, and the last one to the extraction of as much profit as they can. It is therefore clear that the original and essential driver is profit, as is the case with other investments by capitalists. However, this motivation alone is not enough to enable foreign investors to enter China and access land. Why does the Chinese government allow these foreign investors to enter China and gain control over

land? To answer this question, it is vital to explore the role of the Chinese state in selectively attracting Foreign Direct Investments (FDIs).

4.3.4 Attracting Foreign Direct Investments: the role of the state from the central to the local level

At the central level, as part of "reform and opening-up" (*Gaige Kaifang*), intertwined with the "going out" policy, the "bringing in" (*yin jinlai*) strategy was introduced in the late 1970s. Under the 1979 *Law on Joint Ventures Using Chinese and Foreign Investment*, FDIs were initially legalized in special economic zones. In the 1980s and 1990s, foreign investments in China, especially those in specific sectors, were officially promoted when foreign enterprises in selected sectors were granted management autonomy, tax incentives, and some other benefits by an array of laws and policies.[14] After China joined the World Trade Organisation (WTO) in 2001, a series of geographic restrictions were removed, leading to the further opening-up of the Chinese market to foreign investors (Yueh 2012).

However, not all foreign investments are allowed and encouraged in China. According to the *Catalogue of Industries for Guiding Foreign Investment (revised version 2017)* issued by the National Development and Reform Commission and the Ministry of Commerce,[15] foreign investments in 348 particular sectors, including wood forests for the industrial raw materials (Type 1), are encouraged. Meanwhile, FDIs in 28 sectors are completely forbidden (e.g. GMO seeds), and foreign investments in another 35 sectors (e.g. the rice, wheat, and maize trade) can only be made under certain conditions.[16] This illustrates the Chinese state's strategic control of a few sectors, while liberalizing a few others. This corroborates argument by Schneider (2014) about the Chinese state's vital role in deciding what to produce and control domestically and what to "offshore" (or use foreign capital).

Echoing central policy, the provincial government of Guangxi also laid down policies to encourage FDIs in a few specific sectors. In accordance with these policies, foreign investors were entitled to further tax relief and priority in accessing information, loans, and other resources.[17] Thus, foreign corporations such as Stora Enso and APP were legitimized and encouraged to invest in Guangxi.

However, whether or not foreign corporations can gain access to land is more directly linked with the role of local governments. This is due to

the fact that under the decentralization system, local governments, especially those at the county and township levels, have been granted the power to reallocate resources such as land and subsidized fertilizers (Rozelle 1994). On the one hand, county and township governments tended to attract FDIs to generate revenue, especially after the local state became financially independent during decentralization as mentioned in Chapter 1. Such tendencies were further strengthened when the revenues obtained by the local governments were significantly reduced after the introduction of 'Tax for fee' reform in 2002. On the other hand, local government cadres are motivated to facilitate large-scale investments (including FDIs) in order to make economic growth visible and get rewards or promotion under the Chinese cadre responsibility system mentioned in Chapter 3. Whether such local development is able to actually benefit local community is, however, still questionable (Zoomers 2011).

Meanwhile, local governments always use land as a key instrument to attract selected FDIs. According to Wu and Heerink (2016), sizable rural land areas have been expropriated to host foreign investors since 1998, mainly for the construction of industrial parks. This is in line with the demand for land access by foreign companies such as Stora Enso and APP.

To summarize, the state, especially at the local level, is motivated to bring in FDIs in a few selected sectors (including the ITP sector) with a set of preferential policies, including subsidies, tax reduction, and land access. However, to realize foreign land-based investments, certain mechanisms are still required to change control over rural land in China.

4.4 Forestland system in Guangxi

As Edelman, Oya, and Borras (2013, 1521) remind us, "(t)he spaces in which land grabbing occurs have almost always been created and shaped by earlier processes of political contention, longstanding patterns of land tenure and use, and pre-existing social formations." It is thus vital to understand the land-use and land property rights system of the land (mainly forestland) acquired by Stora Enso and APP before the transactions.

As shown in Table 4.1, most of the land controlled by Stora Enso (99.94% of it) is forestland,[18] with 51.38 thousand ha (62 per cent) owned by the state and 33.08 thousand ha (38 per cent) controlled by collectives

(property rights). In the case of APP, all of its ITPs in Guangxi are built on collective-owned forestland.

In Guangxi, state forest farms own 10% of the forestland, while the remaining 90% is owned collectively (as mentioned in Chapter 2). State-owned forestland and collective-owned forestland have different trajectories of land-use and land control. State-owned forestland was originally allotted to communes to build state-owned forest farms in the 1950s and 1960s. As the forestland in Southern China is mainly for commercial use, in line with the national plan, forestland plots were mainly used to plant acacia trees and pine before the rise of eucalyptus trees in the 2000s, "to fulfil the huge domestic demand for timber" (Field notes, 4 March 2015).

Collective-owned forestland has a different story. Most of the forestland was degraded because, during 1950s-1970s, large areas of forestland were destroyed for food production. The less hilly and rocky forestland plots (around 700,000 ha) were used for grain and sugarcane cultivation, leaving other non-arable forestland plots as 'waste' (Li 2008, 27). Later, even under two state-led reforestation movements,[19] these forestland plots mostly remained degraded with several pine trees and/or acacia trees planted haphazardly.

The degradation of collective-owned forestland resulted mainly from the low economic incentives for forestland investment and villagers' lack of financial capital. At the same time, pine and acacia trees have low and slow economic returns because of their long growth cycle (more than 15 years). Consequently, before the rise of eucalyptus tree planting, there were very few economic incentives for villagers to invest in forestland. Furthermore, villagers' poverty impeded their ventures. As mentioned by one of the villagers I interviewed in Hepu County in Beihai City, "in the past, we were very poor here. What can we do that we do not have money to plant (trees)? When bosses came, (could) we not (let them) develop? (We) contracted the mountain, all of us contracted to them." (Field notes, 20 March 2015)

However, this does not imply that these 'waste' forestland plots were not used by villagers. In one village I visited in Hepu County where Stora Enso and APP acquired large-scale forestland, a large number of villagers told me that they used to "live off cutting firewood" (Field notes, 3 March 2016). This implies that land-based investments in the ITP sector will have a significant impact on these villagers in terms of their livelihoods. This will be discussed in Chapter 5.

In terms of land property rights, the ownership of collective-owned forestland is rather ambiguous in rural Guangxi as mentioned in Chapter 2. In the 1980s, when farmland was equally distributed to each rural household under the HRS reform, most of the collectively-owned forestlands in Guangxi, especially the degraded land plots, remained in the hands of the collectives. In practice, however, these undistributed forestland plots had customarily been 'owned' by a few villagers. In most villages, it was commonly agreed that "those who clear empty land (forestland), own the land" (Field notes, 6 March 2015). In other words, once someone in the village reclaimed a piece of forestland, this land plot was then believed to be "owned" by his/her household. These households usually possessed rich labour resources, extra money for the venture, and sometimes even special networks for better access to information (e.g. village leaders or their relatives and friends). To formally distribute and clarify the user rights of collective forestland, Guangxi started a forestland reform in 2008,[20] although most of the land plots were already being used or occupied by several villagers and external investors before the reform.

Clearly then, the social relations around the land that was later transferred to foreign investors are complex: some land was state-owned; some owned collectively but already customarily "owned" by someone; some was for commercial use; some was 'waste'/'underused' but actually used by someone. This implies that foreign companies required specific strategies to gain control over land.

4.5 Mechanisms of land acquisition

In such a context, as foreign investors, Stora Enso and APP require specific channels to gain control over the land, which may or may not be the same as those for domestic grabbers. Furthermore, their various means of acquiring land in the specific Chinese context are linked with certain conflicts related to land-use and control changes.

This part of the thesis provides an initial analysis of the large-scale land acquisition practices of the two foreign investors. First, Chinese law stipulates that since APP and Store Enso are foreign investors, they are required to set up joint ventures involving domestic capital in order to gain access to land in China. As a result, 12% of Stora Enso Guangxi's shares are held by two state-owned entities (Guangxi Forestry Group Co Ltd,

and Beihai Forestry Investment and Development Company) (StoraEnso 2016b, 17).

Additionally, according to the *Land Administration Law of the PRC*, no one can buy or sell land. Thus, in order to acquire land, these two international companies have to lease from, or cooperate with, landowners. Under the land system in Guangxi, APP and Stora Enso have four main channels with which to gain control over land, namely, 1) leasing land from state-owned farms; 2) leasing land from rural collectives; 3) leasing land from middlemen; and 4) cooperating with individuals.

4.5.1 Leasing from state-owned farms

As key projects to attract state-promoted FDIs, the two foreign companies were offered an opportunity to contract forestland owned by state-owned farms through *Guangxi Forestry Group*, a company set up by the Guangxi Forest Department.[21]

Through this channel, more than 60% of Stora Enso's forestland was transferred from eight state-owned forest farms. APP was permitted to contract 44.67 thousand ha forestland from five state-owned farms[22] but in the end this land deal was not settled. That is because, according to an APP staff member, the forestland plots were located in the east and north part of Guangxi, where the climate is not suitable for the cultivation eucalyptus trees, and is far from their pulp factory in Qinzhou (Field notes, 20 March 2014).

Foreign companies prefer to use this channel because land that is state-owned is usually large-scale and contiguous, and involves less complicated social relations. These features mean that land acquisitions acquired using this channel are more convenient and have fewer potential conflicts. However, this channel is not entirely grievance-free. Some state-owned farms expressed complaints:

> The 50-year duration of the land lease is too long. Our land leased from outside only has a term of 30 years… When Stora Enso contracted the forestland, the price was only several hundred Yuan per mu including the seedlings. Now the benefits are seven or eight times (than they were at that time). The land could be over 10 thousand Yuan per mu. It (Stora Enso) does not to want (to lease) the land with any conflicts (around land ownership). The land lease is a requirement from the government. It (the investment by Stora Enso) is the investment attracted by the provincial government. … If (we)

> can (choose) not to lease the land to Stora Enso, (we) are certainly not willing to give (land) to them. (Field notes, 10 March 2015)

With a change in the control of land and the large-scale leasing of forestland from state-owned farms to foreign companies, state-owned farms face a land shortage. As a consequence, more land plots change hands as state-owned farms try to compensate their loss.

For most domestic investors, especially small-scale ones, this channel is not commonly available. Although a few domestic private companies/entrepreneurs have been able to cooperate with state-owned farms or even lease land directly from state-owned farms,[23] the support they get from the state in this endeavour is much less, and the scale of their land access is much smaller.

4.5.2 Leasing from rural collectives

Apart from leasing the forestland originally owned by state-owned farms, another vital approach is leasing land from collectives by negotiating with village leaders/elites. Such land leases also are not without the intervention of the state. A village cadre from a county in Guangxi illustrated this well: "In the past, the provincial state helped build the connection (between the foreign companies and the village)" (Field notes, 18 March 2015).

This form of leasing is another favourable option for foreign investors because collective-owned forestland is relatively contiguous. However, as previously mentioned, before the entrance of Stora Enso and APP, collective-owned forestland was sometimes already used and/or customarily occupied by some villagers. Due to this ambiguous ownership of forestland, access to this land by foreign companies tends to provoke conflicts. In one of the villages I visited in Hepu County in Guangxi (Field notes, 4 March 2016), it led to a series of conflicts, both covert and overt, between the villagers and the company. In the end, the foreign investor had to return part of the land to the villagers.

In addition to ambiguous land ownership, there are two other key triggers for conflicts via this channel - illegally signed agreements and low land rent. This was expressed by an employee from one of foreign companies:

> In the past, villagers did not know about the eucalyptus trees, and did not know how many economic benefits (can be gained from) this tree

> crop…they thought the forestland was valueless. So, when it came to signing the agreements, many of them did not care. A lot of people were not at home. Some phoned and said: 'Anyway, I did not use that thing (the forestland), you just forest it.' Some asked other villagers to sign their names... (Some agreements) did not have enough signatures.[24] …And at that time, the market rent was relatively low, namely, 10 to 20 Yuan, which was still worth something…now they feel they have lost out. Together with the problems (with the procedures of land leasing), their grievances have deepened and widened. (Field notes, 19 March 2015).

Although this employee is somewhat biased and neglected the unequal information access between the corporations and villagers, what he said still reveals some problems within such land leases. Illegal land contracts might be due to manipulation by a few local elites, as observed by Ping and Nielsen (2010b, 18-19), or the carelessness on the part of the villagers, as pointed out by this employee. In some cases, these leases led to the loss of collective land without compensation, and even without the villagers noticing, which provoked conflicts (Ping and Nielsen 2010b, 18-19). In a few cases, however, because of the illegal nature of the land contracts, villagers rightfully gained support in getting higher land rent or in getting some land back, as was the case in one village I visited in Guangxi. In addition, land rent is always low, far below the current value of forestland that has increased due to the rise of the ITP sector. According to an official from the Guangxi Forestry Department, forestland rent has increased more than 10 times in Guangxi from the time that land leasing started so "there are huge conflicts" (Zhang 2010a).

After such land leases, affected villagers lose control on the forestland they should have priority to contract.[25] Thus, except for those who have the financial capital to lease land from other villagers, most villagers lose an opportunity to expand their livelihood sources with the rise of ITP sector. As regretted by a leader of a production team in Hepu County, "at that time, (we) did not know (the price) of the tree would be so high. If (we) had known, (we) would have distributed the forestland to each household to plant trees by ourselves" (Field notes, 2 March 2016).

For domestic investors, leasing land from collectives is also a commonly used channel. To give an example, an employee of Dongmen state-owned forestry farm told us that the forestland they leased is from collectives, mostly (two-thirds) via the coordination of village committees, county governments, and the county Forestry Department (Field notes,

10 March 2015). However, in the case of domestic investors, instead of strong involvement of the state, especially at the provincial level, it is the social connections with the local elites that usually play a more critical role. However, as with foreign investors, domestic investors also encounter conflicts during land control changes (Field notes, March 2016).

4.5.3 Leasing from middlemen

Before foreign companies entered Guangxi, part of the forestland had already been contracted to several individuals (both local villagers and investors from outside) based on the social relationships and financial capital they possessed.[26] So, to get access to those land plots, foreign companies needed to subcontract the land from middlemen (known as 'big bosses' by villagers).

Such land leasing is not free from the state's intervention, as a county official explained:

> I used to contract some forestland. Because I work in the government, the county (government) mobilized (the officials to take the lead to lease forestland under reforestation movement). Some friends and I together had around 4000 mu of forestland. Now all (of the forestland) has been given to them (refers to foreign companies). It is really a loss. But (this was) mobilized (by the government)… every county has tasks (about the quantity of land leased to foreign companies). (Field notes, 17 March 2015).

However, this is a less preferred channel for corporations. Although foreign companies can access large-scale land areas with fewer contacts through intermediaries, the land rent is usually higher compared to direct leasing. As an employee of one foreign company complained:

> We want (to get the land from the collective). But we have our plans, and we have some norms. We are surely slower and less flexible than the individuals. They (the individuals) are very fast. They get a lot of land from collectives. (To negotiate with individuals) is not what we want… we have no way....They get contracts from villagers, (with the land rent) at 10, 50, or 100 Yuan per mu, while, we contracted with them (at a price) of 100 to 150 Yuan per mu. (Field notes, 19 March 2015)

In addition, investors are disconnected from original land holders/users when acquiring land via this channel. This tends to increase potential

conflicts with the affected villagers, especially when the middlemen obtained the land through improper means (e.g. coercion) as illustrated by Ping and Nielsen (2010b).

This is a channel that domestic investors, especially those from outside who have weak social connections with local elites, always chose. As is the case with their foreign counterparts, these domestic investors also face huge (potential) conflicts during their land access attempts using this channel.

4.5.4 Cooperating with individuals

In a few villages, some villagers had already accessed forestland from their collectives (via leasing or customary occupation) before the entry of the foreign companies. If these landholders, usually big landholders (called "Da hu" by local villagers), were not willing to lease their land to international companies, the latter (mainly APP), sometimes chose to cooperate in other ways with them: landowners plant eucalyptus trees using seedlings, chemical inputs and technologies provided by foreign companies, and the profits are divided (e.g. 30% for villagers and 70% for the company).[27]

Again, this is not a channel that is independent of state involvement. According to a report in *Economy & Nation Weekly*, the government of Qinzhou city required the local Forestry Department to help APP to get access to land. Following this state intervention, a staff member from the Pubei County (a county of Qinzhou city) Forestry Department represented APP in signing cooperation agreements with villagers in the name of the forest department of Pubei County (Zhang 2010a).

This is the least favourable channel for the corporations. With such an approach, foreign corporations do not gain direct control of the land, and take more risks (e.g. crop failures or 'side selling' problems[28]). Moreover, such land access has provoked a myriad of conflicts with villagers. In the case of Pubei County mentioned above, after two months of logging, some villagers had still not received any payment. So they rejected APP's further logging attempts (Zhang 2010a).

This channel is also used by domestic investors, including state-owned farms, private corporations, and individuals. For them, cooperation is usually conducted based on their social connections and is a way for them to have indirect access to land, despite the fact that they may face similar conflicts as their foreign counterparts.

4.5.5 Relevant discussions

Besides the four main channels illustrated above, there are a few other means that Stora Enso and APP use to acquire land (e.g. taking over the plantations from individual planters[29] and leasing land from small landholders). These are less common, however, and usually occur at a much smaller scale.

There are three points which are associated with land acquisitions by foreign companies which I want to highlight. Firstly, access by foreign companies to land in Guangxi is more or less facilitated by state actors as mentioned above: some of their land plots are directly transferred from state-owned forest farms; some of the land plots are leased from officials, their relatives or friends under state mobilization; some of their land plots are attained from rural collectives/individual landholders based on the relationships built by local governments. However, this is not the case in all counties across Guangxi. Some county governments are not so enthusiastic, especially when there is no guaranteed revenue.[30] This complicated role of the state was analysed in Chapter 3.

Secondly, not all villagers resisted such foreign company dominated land acquisitions. While some villagers resisted overtly, commonly through social media channels, some villagers resisted covertly, using tactics including anonymously encroaching foreign-owned land, stealing trees, destroying young plants, and setting fires to tree plantations.[31] These tactics are very similar to the "everyday forms of peasant resistance" described by Scott (1986a). However, quite a few villagers are indifferent to, and even embrace the land deals. These diverse political reactions by the affected villagers and the reasons behind them (whether due to the foreignization of land control or other reasons) will be discussed in Chapter 6.

Faced with resistance from below, both APP and Stora Enso have become cautious in their land access strategies in Guangxi. Since 2008, APP has almost entirely halted its land acquisition in Guangxi.[32] Stora Enso has reduced the amount of land it controls from 90.2 ha in 2014 to 86.3 ha in 2016, after correcting and revising its land leasing contracts in 2009 (StoraEnso 2016b, 47). Moreover, as mentioned in Chapter 3, in response to resistance and the central state's pursuit of "ecological civilization", the provincial government began putting the brakes on the rapid and massive

expansion of eucalyptus tree plantations.[33] Some county governments in Guangxi even issued policies to stop the planting of eucalyptus trees and have plans to completely remove the ITPs,[34] which will inevitably affect further expansion of foreign ITPs.

Thirdly, such land controls are not static and linear. Some forestland plots have been returned to rural collectives or villagers as a response to the conflicts, an example being Stora Enso during their correction of contracts as mentioned above. Some forestland plots are subcontracted by foreign companies to domestic investors due to frequent typhoons, arson, and tree theft. For example, during one of my interviews in March 2016, I was informed that the ITPs owned by APP in one village of Guangxi were sub-leased to a Chinese entrepreneur.

4.6 Conclusion

With the rise of the ITP sector, foreign companies chose to conduct land-based investments in China, driven by the profits that could be gained from both the sector per se and the downstream paper-pulp sector. These companies did gain control over land inside China, partly as a result of the state's strategic choice and by using channels under the particular institutional and social structures at play in China. They acquired the land from state-owned farms, rural collectives, and landholders, with the help of domestic actors, especially the state.

This chapter shows an alternative geographic trajectory of global land politics: China, which is usually cast as either a major land grabber in distant places, or as a key context for crop booms elsewhere, can likewise be a host country for large-scale foreign land investments. Land deals can take place in any region, even in traditional 'grabber' countries like China, as long as profits are available for capitalists. This insight is also echoed in van der Ploeg, Franco and Borras's work on land grabbing within the Europe Union (van der Ploeg, Franco, and Borras Jr 2015) and Borras et al's research on crop booms in China (Borras et al. 2017). Marx made the point that: "[t]he restless never-ending process of profit-making alone is what he (capitalist) aims at." (Marx (1992, 107). The logic of capitalism is to maximize profit, thus investors will go wherever they can for profit, whether at home or abroad, and will use whatever channel they can to gain control over land. However, as we are reminded by a few scholars (Van der Ploeg 2009, Friedmann 2016, Moore 2017), whether they can actually

gain the land is another issue and is related to the limits (e.g. natural limits) they might encounter. This is not a new argument, and has long been propounded by Marx and a few other scholars. To revisit this argument under the contemporary context is critical, as it explains the dynamics of these foreign land investments in China and calls for a rethink of the nature of global land politics.

Of course, alongside these foreign investors, there are also domestic ones (even grabbers) involved in the ITP sector in Guangxi, ranging from state-owned farms, private companies and entrepreneurs, to local villagers. Albeit with distinct state and local support, these actors gained control over land under the same contexts and via similar means as the foreign counterparties.

With such extensive changes in land-use and land control, villagers are inevitably affected. However, according to Zoomers and Otsuki (2017), regardless of the primary motivations of the land deals, the impacts on the local community tend to be divergent and distinct. Thus, it is critical to have a look at the *de facto* changes in the villagers' livelihoods. These will be explored in the next chapter.

Notes

[1] Part of this chapter has been published in Xu (2018a).

[2] Sino-Forest from Cananda and OJI PAPER CO., LTD from Japan also acquired some land in Guangxi, but on a much smaller scale and received much less public attention.

[3] It includes the plantations where Stora Enso's shareholding is less than 50%.

[4] An Indonesia conglomerate involved in the pulp and paper, real estate, financial services, agribusiness, telecommunications, and mining sectors. (https://en.wikipedia.org/wiki/Sinar_Mas_Group, accessed on 21 June 2016).

[5] https://www.asiapulppaper.com/about-app accessed on 21 June 2016.

[6] Author's calculation based on data from FAO, http://www.fao.org/faostat/en/#data/TP, accessed on 13 May 2017.

[7] http://www.yicai.com/news/4730287.html, accessed on 21 June 2016.

[8] http://www.washingtonexaminer.com/japans-oji-paper-resumes-output-at-china-plant/article/feed/2017721, accessed on 24 June 2016.

[9] http://www.greenpeace.org/china/zh/campaigns/forests/work/work-achivements/app-records/ accessed on 24 June 2016.

[10] https://www.asiapulppaper.com/, accessed on 20 June 2016.

[11]http://www.app.com.cn/en/about/info/id/123, accessed on 20 June 2016.

[12] Beibu Gulf Equity Exchange Group: http://www.bbwcq.com/index.php?m=content&c=index&a=lists&keywords=%CB%B9%B5%C0%C0%AD%B6%F7%CB%F7&no=&catid=19&city=%CB%F9%D3%D0%B5%D8%B5%E3&hy=%CB%F9%D3%D0%D0%D0%D2%B5&submit=%B2%E9%D1%AF, accessed on 27 June 2016.

[13] Apart from these three main reasons, there may also be a few other specific causes. For example, APP's expansion might be closely related to the pressure on it to pay back its outstanding debts (Matthew and van Gelder 2001).

[14] For example, the 1986 *Provisions to Encourage Foreign Investment* and the 1991 *Income Tax Law for Enterprises with Foreign Investment and Foreign Enterprises*.

[15] See http://www.ndrc.gov.cn/zcfb/zcfbl/201706/W020170628553266458339.pdf, accessed on 30 January 2018.

[16] e.g. cooperating with domestic investors, or with domestic investors as the main shareholder.

[17] The 1996 Guangxi policy on further opening up, accessed on 8 January 2018, http://www.dxgxcpa.com/e-news/dispArticle.Asp?ID=61; the 2003 Guangxi preferential tax policy for foreign investors, accessed on 8 January 2018, http://www.mofcom.gov.cn/article/b/g/200403/20040300192586.shtml.

[18] Here forestland does not refer to natural forests, but to one of the eight land-uses classified by the Chinese government in the *Land Management Law*. According to *Guangxi Tongzhi*, most natural forests were destroyed and turned into rocky "waste" land in 1935.

(http://www.gxdqw.com/bin/mse.exe?seachword=&K=a&A=46&rec=86&run=13, accessed on 30 June 2016).

[19] Namely in the 1990s aiming at recovering waste forestland, and in the 2000s to return the occupied forestland to food production.

[20] From the central government website, accessed on 22 April 2016, http://www.gov.cn/jrzg/2012-10/29/content_2252860.htm

[21] But after the reform of public institutions in China, the "*Guangxi Forestry Group* delinked from the Guangxi Forest Department and now belongs to the state-owned Assets Supervision and Administration Commission of the State Council

now" (according to the staff at the Guangxi Forestry Department, 4th March 2015, Field notes).

[22] http://www.gxlyjt.com/news/shownews.php?lang=cn&id=164 accessed on 1 July 2016.

[23] During my fieldwork in Guangxi on 30 March 2015, a local "boss" told me he leased 2400 mu forestland form a bankrupt county-level state-owned farm. State-owned farms also have multiple levels and are under the control of the corresponding levels of administration. Provincial-level state-owned farms (e.g. Gaofeng Forestry Farm) are governed by provincial governments, while county-level state-owned farms are governed by county governments. Usually, the higher level state-owned farms are able to receive more state support and are in a better financial situation.

[24] According to the *Law of the People's Republic of China on the Contracting of Rural L and* issued in 2002, the contract shall "be agreed to by at least two-thirds of the members of the villagers assembly or of the representatives of villagers of the s aid collective economic organization". (http://www.lawinfochina.com/display.aspx?lib=law&id=2433&CGid= accessed on 4 July 2016).

[25] According to the *Law of the People's Republic of China on the Contracting of Rural Land*, the villagers have priority in contracting collectively owned land from their collectives.

[26] Most of the large-scale land owners I interviewed are either local elites or the relatives/friends of local elites (Field notes, 17, 20, 30 March 2015, 13 April 2015, 11, 12 and 20 March 2016).

[27] As mentioned by an official from the local forestry department (Field notes, 17 March 2015), Stora Enso staff (Field notes, 19 March 2015), individual entrepreneurs (Field notes, 13 April 2015), the villagers (Field notes, 3 March 2016) and AP P website news (http://www.appjg.com.cn/JGWebSite/Content.aspx?SiteID=1&ModuleID=0&PageID=2&DataID=10709, assessed on 25 April 2016).

[28] It refers to the phenomenon that individuals do not sell products to contracted companies, but to someone else who can give a higher price. It is quite common in rural China, as also observed by Zhang (2012).

[29] As described in the case I interviewed on 20 Mar 2015: due to the poor road conditions in his village, the villager contracted the 10s mu of forestland to Stora Enso for 30 years alongside the eucalyptus trees already cultivated.

[30] The government can only get revenue in the counties where the big paper-pulp company or processing factories/mills are built, as planting eucalyptus trees per se is not taxed.

[31] According to my observations and interviews with the villagers in one of the villages in Heipu County, Guangxi in March, 2016.

[32] http://www.yicai.com/news/4730287.html, accessed on 21 June 2016.

[33] As the central state will require the provincial government to deal with the conflicts.

[34] Web news, accessed on 29 April 2016, http://news.sohu.com/20060411/n242749631.shtml, http://www.eeo.com.cn/2014/0815/264952.shtml.

5 Chapter 5: Changes in villagers' livelihoods in Southern China within the rise of ITP sector

5.1 Introduction

As already analysed in the previous chapters, with the rise of the ITP sector, a large area of land in Guangxi changed hands and/or use (1653.3 thousand ha in 2010) in a short period of time. Villagers are inevitably affected by these extensive changes in land-use and land control.

Current literature on land grabbing states that large-scale land acquisitions usually tend to result in the dispossession and even displacement of the local villagers (White et al. 2012). In other words, when land deals emerge, although the impacts might vary, at least one group of local villagers will lose control over their critical, if not only, livelihood source (i.e. land). If these dispossessed villagers are not employed by land investors, their livelihoods are likely to become more vulnerable, resonating with what Tania Li (2011) illustrated: "their land is needed, but their labor is not" (Li 2011, 286). Meanwhile, some of the consequences are associated with land-use change. Large-scale land conversion to the monoculture of a certain cash crop is likely to bring additional impacts, for example 'environmental externalities', as all other land uses are threatened or even prevented due to conflicts over resources (e.g. water), and the lack of sales networks for other crops (Hall 2011, 852). These impacts *de facto* affect villagers' livelihoods.

In this sense, within a crop boom, a large part of the villagers' livelihoods tends to be deprived, particularly when villagers' ability to maintain their land control and land-use is low. As has already been analysed in

many cases, large-scale displacement of local villagers is a common outcome.[1]

I argue, however, that this cannot fully capture the dynamics of the eucalyptus boom in China. The rise of the ITP sector took place in Guangxi without full, large-scale displacement/dispossession. Within the crop boom, the villagers' livelihood changes were highly diversified: a few villagers decided not to engage with the sector, while others were able to get incorporated in the crop boom, and even become grabbers themselves. Thus some villagers, rather than completely losing their livelihood, were able to maintain and even expanded their livelihood.[2] Why and how do these livelihood changes occur and what are the implications of these changes?

To understand these dynamics, this chapter analyses villagers' livelihoods through the lens of political economy, with a particular focus on institutions. As De Haan and Zoomers (2005, 44) summarized: "[a]ccess to livelihood opportunities is governed by social relations, institutions and organizations, and it includes power as an important explanatory variable." Similarly, Ian Scoones (2015, 46) also argued that institutions have a critical role in governing people's access to livelihood resources (i.e. what do people have?), which then significantly affects people's livelihood choices (i.e. what do people do?),[3] and the corresponding outcomes. Thus, during an analysis of villagers' livelihoods, it is key to look into certain institutional settings, particularly those that are closely associated with villagers' access to resources (e.g. land) and livelihoods (e.g. off-farm work). In this chapter, such access does not simply mean rights of access (property rights), but, in line with the "theory of access" outlined by Jesse Ribot and Nancy Peluso (2003), also refers to "the ability to benefit from things" (153). In this sense, to understand villagers' *de facto* livelihood changes within the crop boom, it is key to focus on the institutions that are relevant to villagers' capability and autonomy in maintaining and gaining access to resources (particularly land and financial resources) and livelihoods (both on-farm and off-farm work). In the context of rural China, the relevant institutions include the rural land system, labour conditions, and corresponding social differentiation.

Based on an extensive set of primary data from my four fieldwork trips, this chapter explores villagers' livelihoods within the expansion of the ITP sector. This chapter argues that villagers' livelihoods might not necessarily be damaged even when some of their livelihood resources (i.e. land) are

taken during a crop boom. This is closely related to villagers' diverse livelihood sources under specific institutional settings. For example, a few rural households gain most of their income not from farming, but from non-farm work. So, when part of their land is taken (leased out), they are able to maintain their subsistence. Moreover, based on the financial recourses they gain from the non-farm work, some of these villagers are even able to extend their livelihoods within the crop boom. This reminds us that when studying the villagers' livelihood changes, examining *what and how much is left to villagers* in a particular context is equally important as analysing what and how much has been taken. This insight is aligned with James Soctt's (1977) analysis of peasants' moral economy in Southeast Asia.

The remainder of this chapter is structured as follows: in the next part, I briefly discuss the role of specific institutional settings in (re)shaping villagers' livelihoods during the rise of the ITP sector. In part 5.3, I examine the possible negative impact of the expansion of the ITP sector on villagers' livelihoods. In part 5.4, I discuss what and how much is left to the villagers when the crop boom takes place under specific institutions settings. Based on this, I analyse the possible outcomes when villagers choose to engage in or step out of the sector (i.e. what do they do?).

5.2 Specific institutional settings

The livelihood choices made by villagers are not totally free, but embedded in existing power structures, as observed by Borras and Franco (2012, 52): "while land-based wealth and power transfers do occur, access to and control over land is further concentrated in the hands of dominant social classes and groups: landed classes, capitalists, corporate entities, state, or other dominant community groups such as village chiefs." As a starting point, this part focuses on (i) the rural land system, which is not only associated with villagers' land access, but also linked to what can be left to villagers during the crop boom; (ii) internal migration, another key livelihood resource of Chinese rural households and a critical factor that conditions both villagers' land-use change and other villagers' land control change; and (iii) based on the previous changes, the social differentiation among villagers that is related to their distinct livelihood choices.

As mentioned in Chapters 1 and 2, after the HRS reform in the 1980s, land plots in Guangxi were allocated to each rural household, leading to changes in ownership and landscape. In addition, the HRS reform also

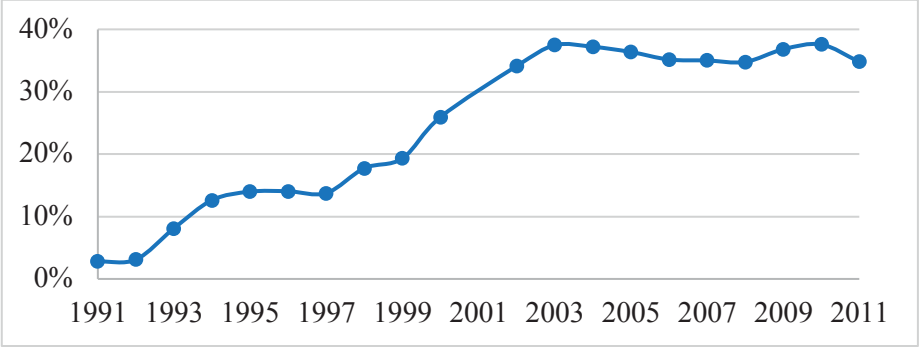
brought changes in the mode of production, namely, from being large-scale commune-based to small-scale household-based. After the HRS reform, land-use decision-making and agricultural production units were shifted from the commune to individual households. The system was thus no longer the egalitarian one under which each individual could get the same irrespective of how much he/she did in the commune, but a responsible system under which "the more one did, the more one can get" (*Duolao Duode*).[4] In this sense, the HRS reform is widely hailed as a vital reason for the vibrant revival of the Chinese rural economy, as it increased villagers' productive incentives (Spoor 2007, 97, Day 2013, 40).

Since the HRS reform, the rural land market/land rental market in Guangxi, similar to that in other regions in China, has been gradually liberalized. According to the land law, members of the community have priority in leasing undistributed land owned by their collective based on the principle of voluntariness. This land system enhances villagers' autonomy and capacity. In particular, with control of land plots, villagers can make their own decisions on production (e.g. which crop to cultivate, and whether the cultivation is labour-intensive or capital-intensive) and circulation (e.g. for sale or for self-consumption). Meanwhile, villagers can choose to mortgage or lease out the control of their land in exchange for the financial support that they need for their livelihood strategy (although land fragmentation might hinder their attempts). In addition, despite the fact that they have more profitable sources of income than farming, villagers may choose to keep control of their land as a "safety net" to secure at least part of their subsistence if they fail to do so through other sectors.

The massive urban-rural migration, as discussed in Chapters 1 and 2, has strategic relevance in this chapter. On the one hand, such changes in labour conditions have implications on the labour supply in the countryside. When the young and the physically strong migrate out, labour in rural households is fit for the development of labour-saving crops such as eucalyptus. On the other hand, the wages obtained from migrants' work also has impacts on households' incomes. As shown in Figure 5.1, at the beginning of the 1990s, wages accounted for 3% of average rural household income in Guangxi, while in the 2010s, 37% of the rural household income comes from wages. This falls in line with the argument by van der Ploeg and Ye (van der Ploeg and Ye 2016): "for the people involved in both farming and non-agrarian activities, 'multiple job holding' represents *a unity of two non-comparable, but supplementary domains*" (2016, 29). In this vein,

the shift of labour conditions in Guangxi in essence enhances the livelihood resilience of villagers. In other words, when villagers lose part of their income from farming (e.g. due to issues related the weather or, worse, due to the loss of part of their land access), they might still be able to maintain their subsistence. In a few cases, when off-farm work becomes their primary source of livelihood, these villagers might be willing, even eager, to transfer their land access in exchange for land rent. Meanwhile, migrant work also offers financial support to a few villagers when they want to expand their livelihoods, e.g. to invest in the ITP sector.[5]

***Figure 5.1** Percentage share of wages in total income of average rural household in Guangxi*



Source: Guangxi Statistical Yearbook (1991-2012)

Following the changes in land and labour conditions in rural areas, villagers started to differentiate, although there are still debates about the sources of this differentiation. Some scholars believed the differentiation is related to non-farm work. According to Zhang (2012, 469), Chinese villagers' unequal access to non-farm incomes is the main factor that resulted in their differentiation. Similarly, Jacka (2017) also observed social differentiation led by outmigration. Such differentiation is circular and related to demographic change, although later it might contribute to a polarized differentiation among villagers. Meanwhile, some scholars argued that farming plays a more important role in rural differentiation. As Hairong and Yiyuan (2015) found, Chinese rural differentiation is associated with land control changes via diverse channels. Thus, transformation is an eco-

nomic and permanent process. Common to the two types of differentiation is that they both lead to inequality among villagers in access to and control over livelihood resources (e.g. natural capital, economic capital and social capital), which becomes a key factor that affects their distinct livelihood choices and the corresponding outcomes.

Thus, on the one hand, these institutions are critical factors that (re)shape what villagers have, what they do, and the corresponding outcomes. They could, therefore, (at least partly) explain why the livelihood change of Guangxi villagers as a result of the expansion of eucalyptus trees were different from those of villagers in Brazil, Ecuador, and some other countries. On the other hand, the livelihood changes are continuously shaped by a series of changes induced by the expansion of ITPs, which in turn further affect villagers' livelihood responses. So we need to explore these changes in a dynamic and relational way.

5.3 The negative impacts of ITPs on the local community

The rise of the ITP sector had negative impacts to the local communities. Although the impacts were not distributed evenly, at least some of the villagers saw their livelihoods significantly affected. Specifically, some villagers lost part of their source of livelihood due to the loss of control of collectively-owned land. A few villagers faced declining yields because of the negative environmental impacts of ITPs.

5.3.1 Loss of livelihood sources

Some of these impacts are associated with land control change. As mentioned in Chapter 4, the land leased to domestic and foreign investors is mostly collective-owned forestland, due to the fragmentation of already distributed farmland plots. These land plots are usually seen as "empty" or "marginal" land that is unused or underused. However, as Borras and Franco (2012, 45) remind us, this definition can be problematic, especially when these land plots "have a particular cultural or ecological significance".

In the case of Guangxi, although most villagers would agree that the land leased out is "barren hill" (*Huangshan*), there are still some villagers who used to get part of or even most of their income from these land plots. For example, in one of village I visited during my fieldwork in 2016, a lot of villagers used to generate income by cutting firewood from the

forested hills which were later contracted to Stora Enso. This was illustrated by a villager during a focus group discussion in a village in Hepu County, Guangxi:

> In the past, my household income came from farming and cutting firewood. We have no other income. The food we grow was not enough to eat, so we depended on cutting firewood to buy food. Now no firewood can be obtained, because the Finnish company plants eucalyptus trees here and there is no brushwood (to be picked as firewood) (Field notes, 3 March 2016).

Similarly, another villager in the same village told me: "All the land (forestland) in the village has been contracted. Where (can I find) land (to cultivate)?" (Field notes, 3 March 2016). In this sense, some villagers have lost at least part of their source of income due to the changes in land control with the expansion of eucalyptus trees. In addition, they are also deprived of possibilities to expand their livelihoods on previously collectively-owned land. In other words, by the time villagers became aware of the economic value of eucalyptus trees, they had already lost control of the land which they otherwise could have benefited from.

5.3.2 Declining yield

Some of the impacts are related to the land-use change, more specifically to the negative ecological impacts of the crop. As mentioned in Chapter 1, the land-use change towards eucalyptus trees inevitably changed the ecological environment of the neighbouring land plots (e.g. hydrological, nutrition, and sunshine). Such change, in turn, had a significant adverse effect on villagers' farming. According to one villager, "since planting eucalyptus trees, the land has almost no water… Now no matter what (corps) we plant here, they do not grow" (Field notes, 3 March 2016). In a more systematic way, one villager in Binyang County explained:

> No other crop can be grown next to the eucalyptus trees. For one thing, (eucalyptus) trees are very tall. They create shade on the neighbouring land belonging to others. Also, after the trees have been planted for two to three years, there are a lot of weeds. Mice can then easily hide. The mice eat the crop seeds (as shown in Figure 5.2) … What's more, I observed that the roots of eucalyptus trees can reach 20 m to absorb water. (Field notes, 30 March 2015),

Figure 5.2 *A plot near ITPs in Binyang County in Guangxi*

Notes: Photo taken during fieldwork in Binyang County in Guangxi on 31 March 2015. As shown in the photo, fences are built to protect the seeds from being eaten by mice hidden in the weeds as a result of planting eucalyptus trees nearby. However, according to the villager, "it is still useless".

In this sense, after such changes in land-use, a few villagers' yields tend to decrease. This means that for some villagers' their income from farming might further decline, albeit that earnings from farming are already a very low for a few villagers in China.

However, as mentioned in the introduction to this Chapter, even when a part of villagers' livelihood resources is lost during the crop boom, their livelihoods are not necessarily damaged due to the resources that are still left to them. It is thus important to have a look at *what and how much is left to villagers* during the rise of the ITP sector.

5.4 The change to villagers' livelihoods

There are multiple patterns of eucalyptus cultivation, including both large-scale and small-scale tree plantations. Large-scale plantations normally in-

volve massive land control change. As already discussed in Chapter 4, because farmland plots are usually fragmented, most of these large-scale plantations are built on forestland, mainly acquired by international companies from state-owned farms, rural collectives and middlemen, and, to a lesser extent, directly from individual villagers. The forestland previously occupied by state-owned farms is state-owned, while the rest is collectively-owned and usually remained undistributed before the crop boom. This indicates that during the land control change, most villagers' access to farmland plots was not affected.[6] Therefore, the villagers were not deprived of their corresponding livelihoods from these land plots.[7]

Meanwhile, small-scale plantations are usually built by villagers on the land plots they have access to. This usually involves a change in land-use rather than a change in land control. During this process, therefore, these villagers' land access and associated livelihoods are not hurt, although their neighbours' farming might be affected due to the environmental impacts of the tree crop.

The development of the ITP sector in rural Guangxi thus took place without full, large-scale displacement of villagers. In other words, due to the specific institutional context in China (mainly the land system), although some villagers lost access to part of their previous or future forestland, the access of most villagers to farmland remained intact.

Moreover, as already mentioned in the previous part, a large number of villagers in Guangxi carry out off-farm work in urban areas and the wages these villagers earn have become a vital part of their household incomes. Thus, even though part of their land access was taken during the expansion of the sector, these villagers' access to alternative livelihood sources (e.g. wage jobs) was undamaged and could still provide financial support to maintain and even extend their livelihoods.

Based on this, the villagers had (albeit differentiated) autonomy and capacity to make livelihoods choices within the crop boom. As illustrated in Table 5.1, some villagers chose to engage with the ITP sector via internal grabbing of land (i.e. land grabbing within their own village and at the expense of their neighbours/kin) or changing their land-use, while others chose to "step out". Irrespective of their choices, all these villages made changes of their own will and based on what they already had. Thus, rather than a complete loss of livelihoods, a few villagers, particularly those with

privileged access to resources, were able to sustain and even enhance their livelihoods.

***Table 5.1** Three main alternative livelihood changes by villagers in Guangxi*

	Choices		*Outcomes*
Intimate land grabbing	Acquiring more land to build ITPs	Use both household labour and employed labour, conduct intensive production practices	Have their livelihoods sustained/extended based on their privileged access to recourses; might gain or lose
Land- use changes	Maintaining land control and changing the land-use of the plots distributed under the HRS reform for the cultivation of eucalyptus	Exploit household labour, apply intensive use of chemical inputs	Maintain their livelihoods and sometimes even have their livelihood resilience enhanced
Stepping out	Actively excluding themselves from the ITP sector	Do not plant eucalyptus trees	Usually have access to better alternatives with material /social capital

5.4.1 Intimate land grabbing

Some villagers gained control over the land from local or nearby village collectives and became owners of eucalyptus tree plantations. In this context, grabbers were not from "the outside", but were "local villagers" themselves. They were able to gain access to land which originally belonged to collectives and benefit from it at the expense of their neighbours and kin. Inspired by the idea of "intimate exclusion", (Hall et al. 2011, 145-146), such land grabbing is called *intimate land grabbing* in this study.

In some cases, these villagers decided to grab land and engage in the ITP sector after calculating the benefits and costs. As explained by one villager in Wuming County who returned to the village and invested in the ITP sector:

> (I) used to be a barber in Shenzhen, Guangdong. Now (I) am getting old, so I came back. Now our county is developing very fast. (We) do not need to go very far (to work). There are factories nearby, which was not the case before. Here, (if I) got 100 Yuan, it is equal to 200 Yuan in Guangdong. And (I) have to pay for accommodation (in Guangdong). Although the income there is a bit higher, it is not much higher (than that earned here in Guangxi). But (I) need to rent an apartment. Now I can go back home every

> day. Now (I) plant trees, which is much more comfortable (Field notes, 13 April 2015).

Sometimes, such local investments are motivated by big companies. This is the case of one villager who controls over 110 mu of forestland:

> I used to do migrant work outside. Then the Finnish company (Stora Enso) came to our village and leased the forestland at the price of 8 Yuan per mu per year. I felt it was not worthwhile. I think it is better that I cultivate by myself. At that time, the timber was quite cheap at only 260-280 Yuan per tonne… (I) never thought the price would increase to the level it is at today (at around 600-800 Yuan per tonne). (Field notes, 18 March 2015).

To gain control over land, these grabbers employ both economic and extra-economic practices, as summarized in Table 5.2. These practices include (i) enclosing previously commonly-used land to exclude others from using it based on their own resources (particularly their labour and social resources), (ii) leasing collectively-owned forestland earlier or at a price that others cannot afford, (iii) lending money to landholders in exchange for control over land-use and outputs, and getting involved in up-/downstream business to enhance their control over the land.

***Table 5.2** Distinct channels of individual villager-dominated land grabbing*

Type	Channels	Number of interviewed cases	Scale (mu)
Extra-economic	Customary occupation	56	0.5-200
Economic	Leasing	20	7-500
	Loans	1	Hundreds
	Control of up-/down-stream business	15	-

Source: Author's fieldwork in Guangxi in 2015 and 2016.

The first practice is more common, is normally piecemeal, takes place by stealth, and generally on a relatively smaller scale, as shown in Table 1. Under this scheme, these local land grabbers controlled undistributed and collectively-owned forestland using customary occupation. This group of grabbers are villagers whose households have abundant labour resources

to work on the degraded forestland, and access to information about profitable land-use. As explained by a villager in a focus group discussion when I asked about the uneven distribution of forestland in their village: "if you have better labour conditions (for your household) and are physically stronger, you can occupy more land. (Because) (forest-) land has not yet been distributed" (Field notes, 11 March 2016).

In spite of having suitable labour conditions in their households, most villagers can only grab very small pieces of land, usually less than 10 mu, while a small group of villagers gained access more land, grabbing as much as hundreds mu. The amount of common land is limited but these villagers gained more land because they started the practice of land grabbing earlier than others. Why did these villagers seize the opportunity and spend time and labour on claiming degraded land plots which, before the eucalyptus boom, were originally thought of as "valueless and unwanted by people" (Field notes, 13 March 2016) while other did not? The answer is closely allied with villagers' ability to access information. This is the case of an ex-leader of a village I visited in the March of 2016. He got information about the rise of the ITP sector form friends in the county government and became the first to claim undistributed and collectively-owned forestland. In this way he gained control of around 200 mu of forestland. Later, other people began to see the benefit of claiming undistributed and collectively-owned land and started claiming it as well, but on a much smaller scale (around tens of mu).

So only those villagers who have social connections to get information and sufficient access to labour resources are able to seize the opportunity to gain control over restricted land via customary occupation. At the same time, when these villagers control the land, others are inevitably dispossessed, and excluded from original and (possible) future use of the land.

The three practices described above are based mainly on market power. To directly control the land, some villagers leased land from their community using their financial capital. Their economic capital advantage came mostly from non-farm work. Of the 20 villagers I interviewed in Guangxi in 2015 and 2016 that leased land from the collectives, all of them were doing waged, non-farm work in urban areas, ranging from transportation, construction, and trade, as the main source of their households' incomes. This implies that access to profitable non-farm work was vital for these grabbers to gain direct control over land in this way.

Seventeen of these households are completely independent landholders, with the scale of their plots ranging from 7 mu to 500 mu. Three villagers share part of the landholdings with a few of few friends or kin (1 to 3 people), at the scales of 30 mu, 50 mu and 200 mu respectively.

In addition to land leasing, there are also indirect ways for individual villagers to control land-use and products. One way is the use of loans, which is less common, but still exists. To give an example, a villager who already had 150 mu of ITPs lent money to another planter, enabling him to buy chemical inputs. In exchange, the villager giving the load could purchase the trees at a specified price after four years (Field notes, 18 March 2015). Another way to control land-use and products is to control the ITP value chain by engaging in one or more upstream or downstream businesses, including transporting trees and timber, preliminarily processing, and trade (i.e. being brokers).[8] In this way, villagers can enhance their power and get better terms.

These practices are not completely independent of each other. Some grabbers used a combination of these practices to get control over land. The villager who lent money to control the outputs produced by other villagers also leased land from his village to directly control 150 mu of ITPs. Six villagers I interviewed who leased land to build ITPs are also engaged in up- and downstream ITP sector businesses.

These land grabs occurred at a much smaller scale than those carried out by Stora Enso (82.26 thousand ha) and APP (around 100 thousand ha of ITPs) (StoraEnso 2016a, Liu 2010b). Accordingly, the amount of capital involved in their investment is much less compared to the big companies. However, this does not mean that these grabbers have less control. The ease and firmness with which they can control land is embedded in regulation and legitimacy based on their identities as villagers, and on their geographic and social proximity. Legally, villagers have priority in contracting collective land. Thus, their land claims are legitimized. Socially, these villagers, mostly elites, usually have better connections with cadres who are in charge of land distributions and transfers, which can make their access to land easier than it is for "outside" investors.

Moreover, APP and Stora Enso faced resistance to their land acquisition practices and had to adjust their practices - (APP)[9] stopped acquiring land in Guangxi in 2008 and (Stora Enso)[10] reduced the amount of land it controlled from 90.2 ha in 2014 to 86.3 ha in 2016 when it started to correct and revise its land leasing contracts in 2009. At the same time, these

intimate land grabbers were able to maintain their control over land more firmly. On the one hand, due to their intimate relations with their fellow villagers compared with "outside" investors, they usually met much less overt resistance. On the other hand, they were better able to manage the different forms of resistance, which included pilfering, arson, sabotage, and encroachment as they were geographically close to the land plots they controlled. When such resistance erupted, they could quickly move in to stop it, as explained by a villager who controls 150 mu ITPs:

> If the (plantation) is not in the same village, it is very difficult to manage. When the trees are planted outside, no one can watch to see whether other people steal trees. Right? People will not steal when they know it belongs to an individual. And it will be troublesome if the trees are burnt during the Qingming Festival[11].When trees are planted in the place where I can watch, if the trees are burnt, I can just find several people to put out the fire. (Field notes, 18 March 2015).

In this way, compared to big foreign companies, intimate land grabbers do not have weaker, but sometimes stronger control. However, this does not mean that land control is static and that their investments always pay-off. In reality, their investments are also full of risks. During the long growth cycle, villagers also have to bear the volatility of the market and the uncertainty of agronomic conditions (e.g. the weather). One intimate land grabber I interviewed in Hepu County in Guangxi told me that due to the typhoon a year earlier (in 2014), his trees were all "broken" and he faced big losses. Due to such losses, some grabbers reduce or even give up their land control.

Compared to corporations, these individual villager-dominated land grabs sometimes have a specific impact on labour employment and the local environment due to their distinct production practices. Whereas corporation-dominated production depends entirely on wage labour, these intimate grabbers can, at least partly, exploit family labour. According to my interviews, when the amount of land control is less than 30 mu, production practices (including seeding, weeding, and fertilizing, but excluding logging) are usually carried out by family members. When the size of the ITP is over 30 mu, the intimate grabbers tend to hire seasonal labour to sow, plant, weed, fertilize, and log, just as the big companies do. An illustration of this is given by a villager I interviewed in 2015. He contracted 500 mu of forestland from his own collective and I asked him whether he was able to manage such a large-scale plantation. "If (you) have

money," he replied, "it does not matter how many hectares (you cultivate). Work can be done by hired people" (Field notes, 13 Apr 2015).

As for employed labour, foreign companies prefer local wage workers, as explained by an employee of a foreign company:

> The wage of the local workers is higher. But the majority of the employed are local...(because), considering the costs of transport and discontinuity, the total cost of (employing) outsiders is higher. When it rains, the boarding costs will be 50-60 Yuan per day per capita. If the rain lasts long, the project will stop (Field notes, 19 March 2016).

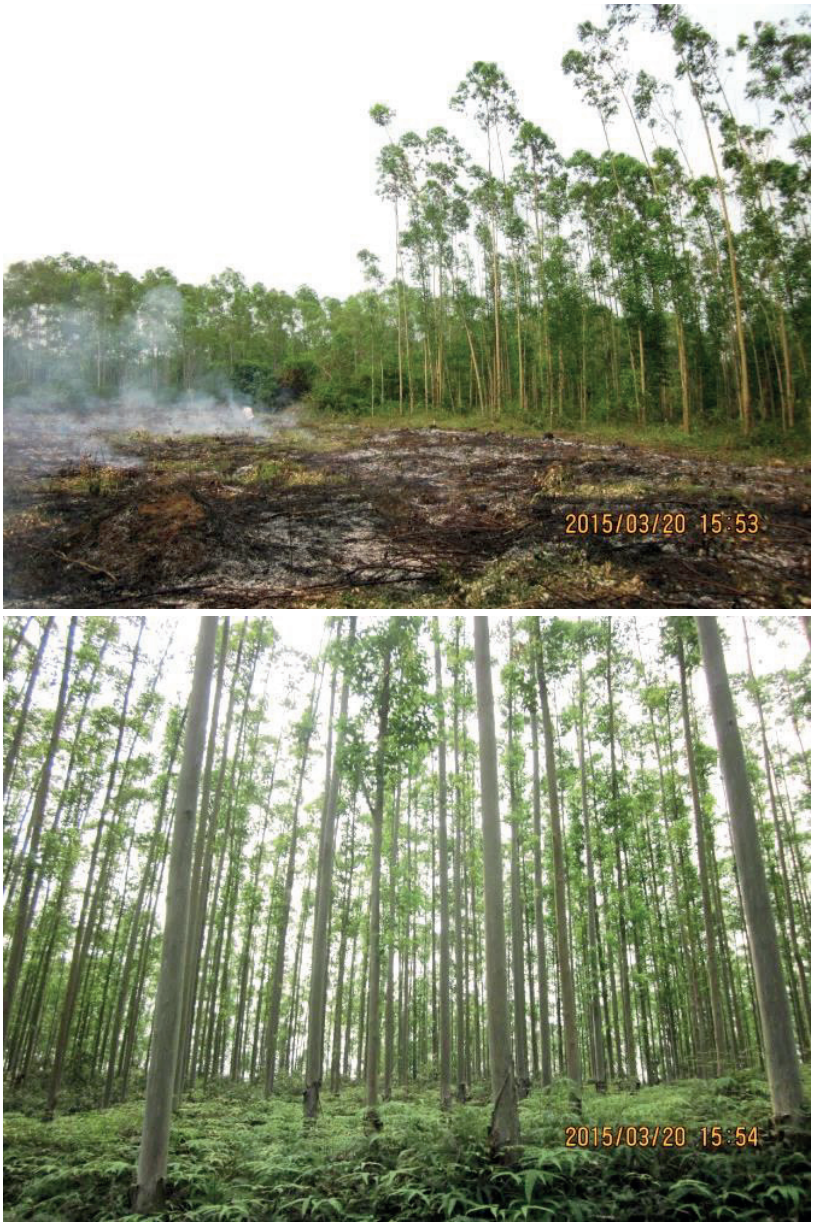
Some intimate land grabbers prefer migrant workers. Intimate grabbers, due to the smaller scale of their ITPs, are less concerned about continuity, but more about pure wage costs, as explained by a villager who owned 300 mu of ITPs:

> Normally (I employ workers) from Yunnan and Guizhou Province. These migrant workers work harder, and they are cheaper. There is one leader of these migrants from Yunnan. He talks with the bosses (the investors), and then goes back to bring a group of migrants. He will also earn some money from this. We call him the broker. It is more secure (for us) to employ through him. And (we) only need to pay him. (Field notes, 13 April 2015).

Surprisingly, individual villager-dominated land investments at times create even fewer job opportunities for the local population than foreign company dominated ones. These villagers act in line with their own interests, which are based on their class relations (i.e. relations with the means of production).

Moreover, intimate land grabbing is not necessarily more environmentally-friendly, but is sometimes observed to have serious negative impacts on the local environment in Guangxi. This is mainly because of a few intimate land grabbers' intensive production practices. During cultivation, some local individual investors stated that they use chemical inputs intensively, as "chemical fertilizers work efficiently and are simple (to use)" (Field notes, 11 March 2016) and "without chemical fertilizers, (trees) do not grow well" (Field notes, 3 March 2016). With intensive use of chemical inputs, these investors are able to log in three or four years, when foreign companies usually take six years or even longer to harvest.[12] Additionally, some intimate grabbers plant trees more densely compared to their foreign counterparts, as admitted by a local grabber (Field notes, 20 March 2015).

Figure 5.3 *Eucalyptus trees planted by an "intimate land grabber" (top photo) and by Stora Enso (bottom photo)*



Source: The photos were taken on 20 March 2015 in Guangxi

Thus, sometimes, according to local affected villagers, one may easily differentiate trees planted by intimate land grabbers from those planted by foreign companies, as shown in Figure 5.3.

This difference is linked with the distinct public attention given to each type of investor. Compared with big companies, especially foreign ones, individual investors are much less exposed to the public. They do not need to follow strict ecological standards or receive environmental assessments from international NGOs as their foreign counterparts do. Thus, they are able to cultivate the trees in a more profitable way as mentioned above, despite the fact that this might sometimes bring more significant environmental destruction.

Therefore, the impact of intimate land grabbers is not less, but at times more significant than that of foreign grabbers. Once intimate land grabbers have acquired the land, their fellow villagers, dispossessed of the collectively-own land that they originally used or could potentially use, are rarely employed on the ITPs. Furthermore, due to a few individual investors' intensive production practices, their neighbours have to deal with more serious adverse impacts on the local ecology, which in turn increasingly affects their agro-production and their corresponding income from it.

5.4.2 Changes in land-use

Another choice for a large group of villagers is to change land-use in order to plant eucalyptus trees. In contrast to the previous group, these villagers did not lease or enclose extra land, but just worked on land plots already distributed to them during the HRS. Thus, these villagers maintained their petty commodity production, enhancing their resilience through their involvement in the ITP sector. Of those villagers who changed land-use, some made the decision based on personal considerations. One villager in Wuming County explained that: "Planting eucalyptus trees needs less labour inputs. (I) can go outside (to do migrant work) immediately after cultivating" (Field notes, 13 April 2016).

For others, their decision to plant eucalyptus trees was the result of "following the crowd". This is because, on the one hand, under the land system in rural China, villagers' land plots are adjacent to each other.[13] Because of the negative impact of eucalyptus trees on the other crops planted nearby, villagers sometimes have to plant the trees when the neigh-

bouring plots are occupied by eucalyptus. On the other hand, villagers believe that following their fellow villagers can reduce risks and avoid the possible destruction and theft of their products by other villagers. The latter point is also a consideration for other land-use changes. During my interview with one villager in M village whose family has four members working in cities, he described such a calculation process clearly:

> (But), it is not you yourself who plant the whole patch. The other people (neighbouring villagers) all plant sugarcane. You want to plant other (crops) like fruit trees but it does not work. Your (land plot) is caught in the middle. You can plant other crops but you should consider that when your trees bear fruit, you have to guard (them). Once the trees are matured, (because) majority of villagers do not have fruit trees, they will pick and eat (the fruit from your trees). As for eucalyptus trees, other people will oppose you. For example, you have 2 mu of (land) in the middle of other plots… (So), if you plant eucalyptus trees, even if other villagers do not speak out (complain), they will still feel uncomfortable. The trees are planted on your land, but even if they are (planted) 2 metres from (the sugarcane planted nearby), the harvest of nearby land plots will still be affected". (Field notes, 16 February 2016).

Similarly, another villager told me: "The land plots are too tiny. If the neighbouring land plots do not plant (the same crop), (I) will not have a harvest" (Field notes, 17 February 2016). But he also added: "now (I) have to plant the same crop as others. It is not possible to be different. (Because I) do not have technology. If (I) have never cultivated the crop before, (I) do not dare to plant it. Without knowledge, (I) cannot plant crops just according to my will" (Field notes, 17 February 2016). So as they say themselves, although personal gain is still the focus of villagers' consideration, some of them, especially those that have alternative livelihood sources, include collective benefits into their calculation.

During their cultivation of eucalyptus trees, these small-scale producers usually make extensive use of chemical inputs. Most villagers believe that the more chemical fertilizers they use, the better and quicker (three or four years instead of five years) they will be able to harvest. As pointed out by villagers in Guangxi, "Whether to harvest or not depends on water. But whether the harvest is big or small depends on the fertilizer" (Field notes, 21 February 2016). In this sense, their production is not eco-friendly.

Will these smallholders go bankrupt as a result of competition with their large-scale counterparts as was the case in Ukraine (Mamonova

2015)? In the case of Guangxi, the answer is no. Indeed, when competing with large-scale counterparts, small-scale independent planters in Guangxi are not in a disadvantageous position. This is mainly because of (i) the diversification of villagers' livelihoods, (ii) villagers' flexible strategy of production and circulation, and (iii) the social and institutional context in rural China.

Firstly, most Chinese villagers have highly diverse livelihood sources, both from farm and off-farm sectors. Even if only considering the farming sector, most villagers in Guangxi are observed to plant more than one crop. In other words, among independent planters, due to the long growth cycle of trees very few only plant eucalyptus trees. Because villagers need a yearly income to cover their daily expenses, they usually plant eucalyptus trees and supplement this with other economic crops which they harvest yearly (e.g. sugarcane), even when the price of eucalyptus trees is much higher. As explained by a villager:

> I do not have a salary. Planting sugarcane can bring income every year. (Villagers) usually follow 'one short and two long' (it refers to the cultivation of one type of crop with a short growth cycle and two kinds of crops with a long growth cycle)… I planted 3 mu of eucalyptus trees. It has been two years. (The eucalyptus trees) are my pension when I grow old. Then I can enjoy my twilight years. (Field notes, 19 February 2016).

This means villagers are sometimes more resilient than large-scale, specialized investors (particularly those for whom the ITP sector is their sole business) as their risks are distributed. When big companies face a big loss under a slump in the eucalyptus market, villagers can still survive and can benefit from other crops.

Secondly, villagers have more flexible strategies in terms of production and circulation, which is partly due to the particular features of the ITP sector and partly due to the market condition. Specifically, planting eucalyptus trees does not necessarily require high technological and machinery inputs. Especially on hilly and rocky forestland plots, machines are almost useless during the production and logging process. In this sense, villagers who can (at least partly) exploit their household labour have a comparable advantage over capitalist investors who face extra costs hiring in labour.

Also, in contrast to big companies who have strict plans in relation to production and logging, villagers usually adopt more flexible strategies.

Take villagers' choice on the timing of logging as an example: when villagers are in need of money, even though sometimes the trees are not ready to be logged, villagers may choose to sell their trees. As explained by a villager who sold trees when the trees were still quite small, "(My household) sold the trees to return the loans (from the bank to build a house). The interest rate is too high", (Field notes, 18 February 2016).

In contrast, when villagers are able to cover their expenses, they can wait for their trees to grow stronger and get a wider diameter (which can be sold at a better price), and wait for a higher market price for timber. One example is a villager I interviewed in Xiangzhou County who planted 7 mu of eucalyptus trees and had still not logged them after 6 years of cultivation (Field notes, 16 February 2016).

> Villager: The price of the tree was originally (at the beginning of 2016) 600 Yuan (per tonne). In July, (the price) dropped to around 400 Yuan. For each tonne, (the price) of the tree decreased 200 Yuan. The market is ruthless.
>
> Me: So is that the reason that you have not sold your trees, although they have grown for 6 years and are ready for logging?
>
> Villager: Yes! I am waiting for the price (to increase).

So some villagers sell the trees when they have only been growing for three years, while some do not sell their trees even though they were planted more than six years ago. In this sense, the trees are treated as a saving, similar to a deposit in the bank: one spends time and money to invest in the trees (e.g. planting, weeding, and fertilizing), and one can withdraw the money after several years when the trees are ready to be logged. One can also get the money back before the set date when one encounters an emergency, but might lose some money.

As for the sales of the outputs of the ITPs, villagers are not in an unfavourable position. This is because the market in Guangxi for eucalyptus outputs is not held by a monopoly controlled by a few companies but involves diverse purchasers, ranging from middlemen, various sized timber processing mills, and paper-pulp companies. In other words, villagers can freely sell their products to whomever provides the highest price in a relatively competitive market.

During my fieldwork in Guangxi in 2016, 37 villagers sold their eucalyptus trees. Among them, 10 chose to directly sell the outputs to companies through which they could get a better price, thus making the sale

"worthwhile" (Field notes, 16 February 2016). Meanwhile, the others (27 villagers) chose to sell their products to middlemen. They believed it would cost them more energy and money to get a cutting licence from the state, to log the trees and to transport them to the companies, especially in cases in which the scale of the plantation was relatively small.

Thirdly, due to the institutional and social structure in rural China, these small-scale producers are not in a marginalized position as is the case of villagers in other regions of the world. Villagers have been allocated land, albeit tiny and fragmented, and are offered a series of distinct subsidies. And in some villages, if they cultivate eucalyptus trees they are provided with reforestation subsidies and free seedlings from the local government. Furthermore, compared with big corporations such as state-own farms and foreign companies, villagers are loosely monitored and controlled. Although this is partly due to the difficulties of monitoring and managing nebulous individual behaviour, it is also because sometimes the Chinese state deliberately carries out less severe control in order to ensure social stability. Thus, villagers are sometimes able to plant eucalyptus trees on farmland despite policies issued by the provincial state that forbid this.

5.4.3 "Stepping out"

There is also a group of villagers who decided not to engage in the expanding ITP sector. This decision was based on their specific interests rather than on passive acceptance. Adapted from Ian Scoones (2012, 515), "stepping out" in this study refers to the strategy of diversifying away from the ITP sector. After making calculations based on their specific situation, some of these villagers choose to plant other cash crops (e.g. sugarcane or fruit trees), as explained by a villager:

> In the countryside, the price of eucalyptus trees is not stable. (The trees) need 3, 4, and even 5 years to generate income, while sugarcane can generate income within one year. As for fruit trees, when the trees start to bear fruit after growing for three years, (the products) of one year can bring profit for three years. And the trees can bear fruit every year after that. (Field notes, 17 February 2016).

Some prefer off-farm work, as is shown by the case of one villager I interviewed in Xiangzhou County in Guangxi who is involved in the transportation business and already has two cars:

> Farming is just to get enough food to eat. My household does not have much land, just a small patch. If we plant eucalyptus trees, the trees will

> shade our neighbour's crops. Neighbours who plant sugarcane will curse us, and would not agree with our cultivation of eucalyptus trees. And, farming makes much less money than work (refers to non-farm jobs). Working for one day you can earn enough to buy two bags of rice. (Field notes, 23 February 2016).

Some of the villagers who stepped out had planted eucalyptus trees previously. In a village I visited in Fusui County of Guangxi in 2015, one villager started to plant eucalyptus trees in 2012 on the 7 mu farmland allocated to his household during the HRS reform. But in the summer of 2014, the trees he planted were blown down by a typhoon. He sold these immature trees as firewood at the price of 280-300 Yuan/tonne, which is less than half of the price of mature eucalyptus trees at that time.[14] Due to the high risks of planting eucalyptus trees and the subsidies provided by a sugar company for the purchase of seedlings, fertilizes and the plastic protective covers, his family decided to stop planting eucalyptus trees and convert their 7 mu eucalyptus tree plantation into sugarcane production, as shown in Figure 5.4.

***Figure 5.4** A land plot tilled to change land-use from eucalyptus trees to sugarcane*

Source: The photo was taken on 7 March 2015 in Guangxi

By making their own complicated calculations, the villagers described above decided to step out from the ITP sector. In the first case, the villager compared the possible benefits of different cash crops and concluded that eucalyptus trees were less economically attractive.[15] In the second case, the villager saw the negative impacts of eucalyptus trees on his neighbours' livelihoods. He later mentioned that the choice was also partly the result of his calculation of his own personal gain from farming and non-farm work. Similarly, in the third case, the villager considered the risk of planting eucalyptus trees and the additional subsidies for sugarcane before deciding what to do with this land, thus also making a decision based on personal interest.

However, not all the villagers were able to step out. In most cases, those who stepped out had better livelihood alternatives. Those who chose to plant other cash crops needed to have sufficient material resources (e.g. land and financial capital). Those who preferred off-farm jobs had to have access to employment opportunities in off-farm sectors.

Therefore, under the specific institutional settings, the villagers in Guangxi have, albeit unequal, access to livelihoods resources (including land, labour, social and/or financial resources). In the context of the ITP sector, and based on the resources they have, they are able to make distinct livelihoods choices instead of passively waiting to be fully dispossessed. As a result, villagers do not necessarily lose their livelihoods. On the contrary, those who have privileged access to resources are even able to improve their well-being.

However, as Zoomers (1999) reminds us, these livelihood strategies are never static, but will change with time. So, when the internal conditions (e.g. demographic) and external factors (e.g. price of the crop) shift, the villagers in question might make different choices regarding to the ITP sector, leading to distinct livelihood changes.

5.5 Conclusion

This chapter has analysed villagers' livelihood changes within the context of the expansion of the ITP sector in Guangxi. It argues that villagers are not always deprived of their livelihoods within a crop boom, but might be able to maintain and even expand their livelihoods under certain institutional settings.

Frist, under the specific institutions in rural China, there are multiple schemes of eucalyptus cultivation involving both large-scale land acquisitions by big investors and small-scale changes in land-use (and sometimes in land control) by smallholders. In rural China, farmland plots were allocated to rural households during the HRS reform and are usually tiny and fragmented. Forestland generally remained collectively-owned and undistributed before the crop boom and is relatively large-scale and contiguous. Thus, due to the transaction and production costs and risks, large-scale eucalyptus plantation owners (particularly big companies) prefer to acquire forestland or to deal with grower contracts rather than directly expel villagers from their fragmented farmland plots. This means that the Chinese rural land system enables investors to acquire massive amounts of *cheap land* without completely displacing villagers, thus to have *cheap labour* at the same time. So, due to investors' interests, villagers' access to recourses and livelihoods might not be destroyed.

Second, again due to these Chinese rural institutions, many, but by no means all, villagers have access to several farmland plots or/and off-farm work opportunities. Because of these resources (e.g. land and/or financial resources), these villagers are not in an extremely vulnerable position, as was the case in some other regions where there was a crop boom. Instead, these villagers have autonomy and capacity to make their own livelihood choices (either to engage in or 'step out' of the sector): some become large-scale tree plantation owners; some maintain their land control, with resilience enhanced through involving the eucalyptus tree sector; and some others have access to better livelihoods. In this sense, the boom might be lucrative for a few villagers. This reminds us that instead of over-focusing on exploring what and how much has been taken away, it is equally important to have a look at *what and how much is left* in analyses of land grabbing and crop booms.

In sum, villagers' livelihood changes are closely linked to certain institutional settings, particularly the specific land system and labour conditions. These settings are associated with what villagers have and what can be left to villagers with the rise of the ITP sector, and continuously (re)shape villagers' livelihood choices and the corresponding outcomes. Without an alternative income source from internal migration and access to information, villagers are not able to gain access to extra land if they plan to invest in the ITP sector. Meanwhile, without access to land under the land distribution reform (HRS reform), a group of villagers is not able

to change their land-use and become independent growers if they want to become engaged in the crop boom. Also, without access to better alternative livelihoods, these villagers are not able to make an active choice to be excluded from the sector and might already have been significantly dispossessed by the rise of the ITP sector.

In addition, there is a high level of differentiation among villagers. Villagers have distinct resource endowments, including land control, labour conditions, financial resources, and social relations. Based on these, some villagers are able to adapt and find their own niche within the rise of the ITP sector, similarly to what villagers in the Ukraine did (Mamonova 2015). Moreover, in some cases, villagers had already been differentiated and spilt into distinct social classes due to their different relationship with the means of production. As illustrated in the case of highlanders in Indonesia, "[i]nitial landownership was unequal and over time, efficient farmers were able to accumulate land and capital and pay workers to expand their farms and profits" (Li 2014, 7). With the crop boom, such social differentiation was further deepened. While some villagers accumulate land control and become better-off, other villagers, especially the marginalized, become more vulnerable. Situated in different positions along the value chain, villagers have different political reactions towards the rise of the ITP sector, something which will be explored in Chapter 6.

Notes

[1] As in the rise of the eucalyptus sector in Brazil (Kröger 2012) and in Ecuador (Gerber and Veuthey 2010).

[2] Although a few villagers might be dispossessed and become more vulnerable in the crop boom.

[3] Although some of the livelihood choices/behaviours might be unintentional and unconscious under certain structural components, as pointed out by De Haan and Zoomers(2005).

[4] Described as 'paying enough to the state, saving enough for the collective and all that's left is ours'(Ye 2015, 320).

[5] A similar role of migrant work and remittances is also observed in other countries, for example Zimbabwe (Ncube and Gómez 2011).

[6] Although some villagers previously earned part of their income from forestland and thus lost a part of livelihood source as mentioned above.

[7] But it does not mean their livelihoods are not affected at all as the eucalyptus tree crop has high demand on water and nutrients (Kröger 2014, Calder 2003). Although the actual effects might vary under different local conditions (McMaster and Bond 2008), during my fieldwork, the villagers in Guangxi complained about the sector's negative impact on local hydrological and soil cycles. The cultivation of eucalyptus trees thus tends to affect the ecological environment of neighbouring land plots (e.g. hydrological, nutrition and sunshine conditions), which then affect a few villagers' farming.

[8] Brokers are those who purchase trees from other planters, harvest them, and then trade the outputs.

[9] See Tongxin. 2016. *The Real Exploration of the 'Plantation-Pulp-Paper integration'* 林浆纸一体化探索 2015, accessed on 21 June 2016, Available from http://www.yicai.com/news/4730287.html.

[10] Data from an official reply from Stora Enso online, http://www.beihai365.com/bbs/m/iphonetest/read.php?tid=3443840&onlylz=1, accessed on 25 April 2016; and Sustainability Report. In *Stora Enso's Annual Report 2015*: p 47.

[11] According to their culture, people will burn spiritual money when they visit ancestors' graves on the hills in Qingming Festive.

[12] Data about the harvest time of these local individual investors is from interviews with a few investors during my fieldwork in 2015 and 2016. Data about foreign companies' harvest time are mentioned in interviews both with employees from foreign companies and with workers in a state-owned farm (Field notes, 3, 19 March 2015, and 29 March 2017).

[13] The big patch has been separated and distributed to different households within the village.

[14] According to my fieldwork in Guangxi in 2015, the price of eucalyptus trees can be as high as 400-800 Yuan/ ton.

[15] In line with the arguments of Hairong, Yiyuan, and Bun (2016, 381) in their analysis of a land use change from soy to maize in northeast China, we should notice that villagers' crop choice - associated with the price difference between sugarcane and eucalyptus – is not solely economic and personal. As has been analysed in Chapter 3, the state also plays a vital role due to the Chinese state's strategic control of the price of certain crops (including sugarcane), but not other crops (e. g. eucalyptus trees).

6 Chapter 6: The politics of inclusion and exclusion in the emerging industrial tree plantation sector in China[1]

6.1 Introduction

Within the expansion of the ITP sector, those villagers in Guangxi who were affected have reacted to such changes in various and complicated ways: some of the villagers got incorporated into the ITP sector, while others are excluded; some embraced the change, while others had complaints; and some of the complaints remained latent, while others developed into (overt or covert) forms of resistance. The key questions that arise are: how do affected villagers respond differently to the rise of the ITP sector, and what are the respective political-economic reasons behind this?

Recent literature provides a rich analysis of the complicated trajectories of political reactions from below to land deals. In the literature, diverse forms of villagers' resistance are discussed, ranging from individual covert forms of everyday resistance (Moreda 2015), individual overt "rightful resistance" (O'Brien et al. 2006), and collective overt movements (Edelman 1999, Martiniello 2015), to more mixed and dynamic forms (McAllister 2015, Alonso-Fradejas 2015). In some cases, villagers sought different alliances during their resistance, with state actors or with elites (Gingembre 2015), indigenous people (Brent 2015), and various NGOs (Rocheleau 2015). In some cases, instead of resisting, villagers chose to adapt (Mamonova 2015) or even welcome the changes in land-use and land control (Castellanos-Navarrete and Jansen 2015, Franco, Carranza, and Fernandez 2011). However, within existing literature on political reactions

to land-use and land control changes, there are still three gaps that (building on Hall et al. 2015 and Borras and Franco 2013), must be fully explored.

Firstly, recent literature is overly focused on villagers' resistance to corporations or the state, while intra- or inter-community conflicts along a "poor people versus poor people" axis have received less attention (Borras and Franco 2013, Margulis, McKeon, and Borras 2013, Hall et al. 2015), despite their prevalence.[2] In the case of Guangxi, villagers sometimes fight with each over unequally distributed "goods" (benefits) and "bads" (negative impacts). In other words, when faced with the expansion of the ITP sector, villagers not only resist, but are also resisted against.

Secondly, most studies on land politics are overly centred on villagers' struggles around land access (e.g. against expulsion from land). Other triggers for political reactions from below during land-based changes, however, have not received significant attention.[3] In reality, triggers to villagers' resistance are highly diverse. Take the case of Guangxi as an example: a lot of the political reactions initiated by the villagers are not directly related to land control, but caused by low land rent or the negative impacts of the ITP sector on soil and water.

Thirdly, contemporary literature tends to focus mostly on the struggles of villagers (excluded from the land deals and/or the emerging enterprises), while the struggles of those who have been *included* in the emerging enterprises are rarely studied in any systematic way.[4] In Guangxi, villagers who are included in the ITP complex, especially in subordinate positions, have taken action to improve the terms of their incorporation, while some of the excluded villagers are indifferent to the rise of the ITP sector.

This set of literature misses part of the contours and trajectories of political reactions from below. As highlighted by Borras and Franco (2013, 1724) and Hall et al. (2015), villagers are not a homogeneous group. They have distinct resource endowments (e.g. land control, labour conditions, financial resources and social relations) and are embedded in certain political-economic environments. Partly as a consequence of this, they are affected differently, causing them to have distinct interests.

In regard to villagers' inclusion and exclusion, Hall et al. (2011, 15) identified four powers that shape the process of exclusion, mainly around land access, namely, "regulation, the market, force and legitimacy". However, the conflicts are not always focused on land ownership and control.

On the one hand, land access is not automatically and necessarily always empowering for villagers. In the case of soybean expansion in Bolivia, villagers who maintain their land access might still be vulnerable and are squeezed out by the market because they lack access to financial capital and technology. McKay and Colque (2016) call this "productive exclusion". On the other hand, when villagers have profitable alternative sources of livelihood, land access or ITP inclusion is not their primary concern. In Guangxi, some villagers actively chose not to expand their land control and engage in the ITP sector, even when they had the resources to do so. For a better understanding of villagers' inclusion/ exclusion, the analysis should not be limited to land access, but should also focus on their positions within the broader "dynamics of change in social relations" (Borras and Franco 2013, 1741).

Borras and Franco (2013) cautioned that the simple "exclusion versus inclusion" dichotomy cannot capture diverse (win/lose) outcomes for villagers and their varying political reactions. On the one hand, villagers who are excluded do not necessarily lose out during the process. Rather, under certain conditions, "exclusion and separation can be valid strategies for the poor" (Du Toit 2004, 1004). On the other hand, villagers who are adversely incorporated might be left in a more vulnerable position (Du Toit 2004, McCarthy 2010). Villagers who are excluded do not necessarily have grievances about changes in land-use and land control. Villagers who got incorporated might resist the terms of their incorporation. This complexity requires a broader exploration of the politics of inclusion/exclusion.

When villagers engage in political reactions, they follow diverse trajectories involving different aims and actors. Some villager resistance can be seen as a "struggle[s] against expulsion", while some is "struggle[s] for, and within incorporation" (Borras and Franco 2013, 1731). Some is against cooperate actors or state actors, while some is against other "poor people" (Borras and Franco 2013, 1730). Thus, villagers' struggles should be understood in a relational and dynamic way, considering villagers' distinct demands during changes in land-use and land control.

Based on the above discussion, this chapter analyses the dynamics of villagers' different political reactions. It focuses particularly on the varying and/or competing interests among villagers based on their various linkages with the sector (namely, passive or active inclusion, and active or passive exclusion), and related gains and losses during the changes. By doing

this, this chapter does not intend to argue that the agency and dynamics of conflicts over the expansion of ITPs in Guangxi are different from or similar to those that occurred in other countries, or to generalize the triggers, mechanisms, and outcomes of resistance from below. This chapter hopes to offer some insights into the divergence of affected villagers within a crop boom, and calls for a rethinking of the nature of rural politics.

This chapter is structured as follows: In the next section, I discuss the framing of villagers' inclusion and exclusion. In section three, I provide a more comprehensive typology of villagers' inclusion and exclusion in the ITP sector. Based on this typology, I then analyse villagers' distinct attitudes towards the rise of the ITP sector and their corresponding political reactions. Finally, I highlight four points that are key to understanding the trajectory of political reactions from below.

6.2 Rethinking the dichotomy of villagers' inclusion and exclusion

With the expansion of the ITP sector in Guangxi, some of the villagers became incorporated when they started to plant eucalyptus trees on their land. Some of the villagers were excluded, in line with the observations by Hall et al. (2011, 13) who pointed out that "the inclusion of some land uses, and some land users, necessarily means the exclusion of others".

In this chapter, in line with the definition of 'exclusion' by Hall et al. (2011, 7), exclusion from the ITP sector refers to the situation of some villagers not able to benefit from planting eucalyptus trees in rural Guangxi. In this sense, villagers who are excluded are those who do not plant eucalyptus trees, either because they do not have access to the land and capital required, or because they do not have any interest in planting eucalyptus trees due to their access to other profitable alternatives.[5] Thus it is clear that villagers who are excluded from the ITP sector do not necessarily lose. As one villager I interviewed in Xiangzhou County who is involved in a transportation business described: "[our household] does not plant eucalyptus trees. [Because] it is very hard work to farm [the trees], and it does not bring in money" (Field notes, 23 February 2016). In comparison, villagers who are included are those who can directly benefit from the ITP sector, including the owners of large-scale ITPs, independent planters, shareholders, planation workers, and landlords. In some cases,

although the villagers can get income from the ITP sector via land rent or employment, such small benefits cannot compensate for their losses.[6]

The mismatch between engagement with a crop boom and the economic outcome (i.e. to gain or to lose) can also be shown quantitatively. As shown in Table 6.1, among the 104 villagers I interviewed in Guangxi, 80 villagers are included in the ITP sector, leaving the other 24 villagers excluded from the sector. Those who are included give a slightly higher evaluation than the excluded (3.04 versus 2.67) of the economic value of planting eucalyptus trees. However, the difference between these two groups is not significant.[7] In other words, based on their own experience, the included and excluded villagers do not show much difference in their attitudes to the economic value of the ITP sector. Therefore, the economic gains and losses between these two groups are not the same.

***Table 6.1** Villagers' attitudes towards the economic value of the ITP sector*

	N	*Means*	*Sig*
Inclusion	80	3,04	0,77
Exclusion	24	2,67	

Source: Interviews in March to April 2016 in Guangxi; 1= very low economic value, 5=very high economic value.[8]

This complicated phenomenon reminds us to go beyond the simple dichotomy of "exclusion versus inclusion". Instead, to understand villagers' actual position within the value chain, attention should be paid to (i) the terms of inclusion and (ii) access to alternative livelihood opportunities.

For those who are included, the terms and conditions of the inclusion, especially villagers' vertical and horizontal links within the value chain, can lead to completely divergent outcomes (Du Toit 2004). When linked vertically, villagers' autonomy and capacity are related to their access to diverse resources (e.g. land, labour, financial, and social resources) and the degree of dependency on upstream (e.g. agricultural input companies) and downstream (e.g. processing mills, retailers) actors. When villagers control abundant resources (including both material and social resources), or even engage with the upstream or downstream sector at the same time (e.g. selling seedlings, processing or trading timber), they have more bargaining

power, and presumably are able to benefit more than their counterparts, as is the case with "intimate exclusions" (Hall 2011, 844). When villagers control limited means of production, or are constrained by monopolized channels of access to agricultural inputs and sale of products, they are very likely to be adversely incorporated. This means they are squeezed by both the upstream and downstream market, and have limited or no control over the processes of production and output, as seen in the case of "productive exclusion" in Bolivia (McKay and Colque 2016). Underlying the above scenario, villagers are sometimes left more vulnerable than they were before their enrolment into the scheme (McCarthy 2010a).

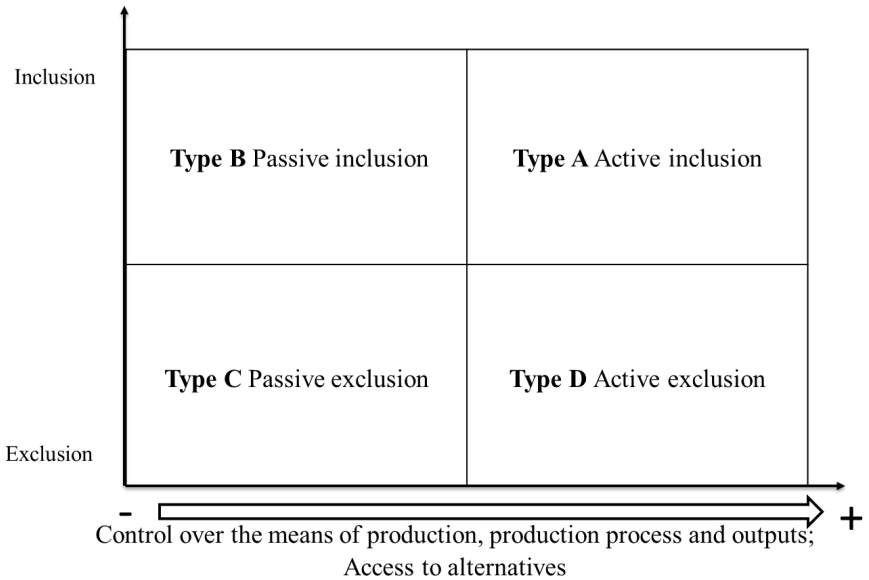
Horizontally, villagers' capacity to survive or compete with large corporations in the market is also directly linked to their differentiation. Such capacity is not only determined by villagers' agency *per se*, but is also influenced by state intervention. When the state particularly favours large-scale investors, smallholders might become vulnerable and easily go bankrupt, as was the case in the Ukraine (Mamonova 2015).[9] When the state supports smallholders, some villagers might be able to prosper, as demonstrated in the case of Vietnam (Sikor 2012). In China, Zhang (2012, 474) found that, "strong state support for agriculture and for market development has created competing paths of agrarian transition based on independent household commodity production".

Another key issue relevant to both excluded and included villagers is whether they have access to alternative livelihood sources. In some countries, villagers' livelihoods are highly diverse, ranging from farm work to non-farm jobs. For those who have better alternatives, their exclusion from a crop boom does not lead to any loss. This is particularly true in China, where farmland is distributed according to the size of each household. Considering the huge rural population in China, villagers' landholdings are usually tiny and fragmented, and bring little (but relatively equal) agricultural income. In this sense, "the primary source of rural inequality is access to non-farm incomes" (Zhang 2012, 469). This is similar to what was indicated by Chen Xiwen, the Deputy Chief of Office of the Central Rural Work Leading Group (CPC): "If only farming 6 or 7 mu land for food production, the annual income is almost equal to the wage obtained in one month for doing migrant work in the urban area" (Guo and Tong 2015).

6.3 Villagers' positions within the expansion of the ITP sector

For a better understanding of how the expansion of the ITP sector impacts different villagers and their responses, this chapter provides a more complex typology of inclusion and exclusion, which covers "active inclusion", "passive inclusion", "active exclusion", and "passive exclusion" (see Figure 6.1). Within this typology, villagers' control over the means of production, the production process and outputs, and their access to alternative livelihood sources are also taken into consideration. In my typology, I consider villagers with limited/no control and limited/no access to alternative sources of income as "passive" (Type B and Type C, respectively). When villagers have sufficient control over the means of production, the production process and outputs, and even gain control over upstream and/or downstream businesses in a few cases, their inclusion is what I consider here as "active" (Type A). For those who control enough means of production and/or have access to alternative sources of income, their exclusion is an active choice (Type D).

***Figure 6.1** Typology of villagers' positions*



6.3.1 Active inclusion

Faced with the rapid expansion of the ITP sector, some villagers seized the opportunity and became incorporated. This group of villagers is located in a relatively advantageous position within the value chain, because (1) they usually have control over sufficient means of production and (at least part of) the production process, and (2) some of them even get involved in upstream and downstream business.

In terms of the means of production, due to favourable geographic conditions, customary occupation, and individual land leasing, some households in rural Guangxi control more land resources. Firstly, due to various land resource endowments among villages in terms of quantity and quality, under the HRS reform land (mainly farmland) distribution is relatively equal within the village,[10] but unequal between villages. Thus, in some villages, there is more land available to be allocated to villagers. Secondly, except for the distribution based on the size of households, there are also informal distributions based on customary arrangements, mainly for the undistributed forestland. Thus, those households with abundant labour and money, sometimes even with particular social capital (e.g. being village cadres), were able to get access to more land. Thirdly, motivated by the rise of the ITP sector, some villagers leased large-scale forestland from their own or nearby villages with the financial and/or social capital they possessed. One villager in Wuming County, who contracted 30 mu of land from his own village collective, explained: "When the Gaofeng state-owned farm came (to lease forestland in my village), some villagers and I also asked to contract (forestland) for the same terms (30 years) and same rent (6 Yuan per mu per year)" (Field notes, 18 March 2016).

Among these land-abundant villagers, some started to plant eucalyptus trees independently. These villagers were able to control the whole process of production and the sale of outputs. They decide whether to employ labourers or use household labour for sowing, weeding, fertilizing, and logging; they choose how to produce eucalyptus trees, with intensive, little or no chemical inputs; and they make decisions on when and how to harvest, either to log and transport the products to the highest bidder or to sell the trees directly to middlemen.

However, these independent planters are not homogeneous. The majority of them only changed part of their land plots, mostly the degraded forestland, into eucalyptus tree plantations. They are ITP smallholders, usually with a total area of less than 30 mu. Thus, although their plot is

relatively small, they are still able to make profit from the ITP sector, since, as one villager said, "it is better than leaving the land abandoned" (Field notes, 22 February 2016). Another villager interviewed pointed out that "harvesting 8- 10 mu (of eucalyptus trees) can bring a lot of income, as much as tens of thousands Yuan at one time" (Field notes, 13 March 2016). For these small-scale independent planters, being included in the ITP sector actually diversifies their livelihoods and becomes a kind of 'bonus'.

A few others are big holders of eucalyptus tree plantations, the "intimate land grabbers" mentioned in Chapter 5. According to data obtained during my fieldwork in Guangxi, they have much larger ITPs, reaching as much as 500 mu, compared with the smallholders mentioned above. Correspondingly, their investment in the ITP sector is much more intensive, which means more potential profits as well as higher risks (especially in the coastal region of Guangxi where there are frequent typhoons in the summer).

In addition, as also mentioned in Chapter 5, to strengthen their active inclusion, some of these villagers choose to become involved in one or more upstream or downstream businesses in the ITP sector. These people are able to gain more profit by expanding their role in the value chain.

In short, the inclusion of this group of villagers is a result of their own initiatives. By increasing their control over the means of production, the production process and outputs, they were able to gain economically under the rise of the ITP sector in Guangxi.

6.3.2 Passive inclusion

Not all the villagers who are included in the ITP sector gain from it. There are some villagers who are incorporated under unfavourable terms, because (1) they control little or no means of production, and (2) they have little or no alternative opportunities.

Compared with the active inclusion group, these villagers have fewer land resources, due to either existing geographic disadvantages or land control changes. Firstly, as mentioned above, in a few villages there is little farmland and little or no forestland available for distribution. Secondly, in some of the villages with abundant forestland, this land was already occupied by or contracted to other investors (including some individual villagers) as already discussed in Chapters 2 and 5, leaving little or no forestland over for other rural dwellers. In such leasing cases, villagers

usually receive very little or even no land rent.[11] Thirdly, some villagers were not originally short of land, but, because of financial difficulties, transferred (part of) the plots they controlled to investors, either through cooperation or leasing, mainly in the ITP sector.[12] They usually have little bargaining power during such land control changes.

Little control over the means of production does not necessarily lead to losses for villagers. Another key issue is that these villagers have no better alternatives, including off-farm work opportunities. In rural China, "households with off-farm income – either local wages or migrant remittances – tend to be better off" (Murphy 2002, 72). A similar comment from a villager in Guangxi highlights this situation as follows:

> If a household does not have anyone to be a migrant worker and earn money, the income from farming only is almost nothing to cover the living expenses of the whole family. If a villager does not go to work outside and depends only on farming, (he /she) may not be able to support his/her child to go to school. Working outside can get you 200 Yuan per day. How much can one earn from farming? (Field notes, 16 February 2016).

However, not everyone has the opportunity to do migrant work to earn extra money to support their family, especially considering the high cost of living in urban areas. Therefore, this group of villagers engages in the ITP sector in various ways, but always in subordinate positions.

Some villagers supply the land they control for eucalyptus tree cultivation, while other investors (either individuals, state-owned enterprises, domestic private companies, or international corporations) cover the expenses needed for seedlings, chemical inputs, and labour. As a result, these villagers still get a negotiated share of the benefits,[13] and they lose part of their control over the production process and complete control over the outputs. Thus, they can derive much less profit from the ITP sector, and sometimes even have to face rent arrears.

Also, a few villagers lease their land (usually forestland) to investors, even if they have already planted eucalyptus trees by themselves, in order to cover the shortage in family income or to avoid further investment in necessary infrastructure (e.g. to rebuild the road to be able to transport timber) (fieldwork interviews, 20 March 2015). These villagers lose control over at least part of their means of production in exchange for some land rent, which is usually rather tiny compared with the benefits of ITPs (which, according to fieldwork interviews, can bring in at least 1000 Yuan

per mu per year). A couple who leased their forestland to Sotra Enso in Hepu County explained that, "how much forestland can be distributed for (us) two? We only get some 200 Yuan per year through leasing to the Finnish company. What is the use of 200 Yuan now? It can only buy several jin[14] of pork, we cannot even afford one jin of seafood" (Field notes, 20 March 2015). In this sense, their inclusion in the ITP sector brings hardly bring any economic gain to their household.

Some villagers have to change some of their plots into eucalyptus cultivation because of the negative ecological impact of the ITPs planted nearby. According to one villager in Binyang County, "there is no other crop that can be grown beside the eucalyptus trees…So if you plant eucalyptus trees, I have to also follow the same change in land-use" (Field notes, 30 March 2015). For them, their tiny ITPs – usually less than 1 mu – are too small to enable them to employ labourers to log and transport the limited outputs to processing millers or companies. Additionally, the small scale of their plot makes it difficult for them to negotiate a good price with the middlemen who purchase the trees. Thus, their inclusion does not bring more profits than their original land-use.

Some villagers, mainly the young and strong, are incorporated into the ITP sector through employment opportunities provided by the investors who lease their collectively-owned forestland, via introductions by their friends or relatives. Since the ITP sector is labour-saving, villagers' employment is usually temporal and seasonal, ranging from 4 to 90 days per year (Interviews, 2016). Among these workers, some are able to do relatively skilled jobs (e.g. logging), which can earn them higher wages of around 150-200 Yuan per day. Others can only do simple jobs (e.g. weeding and fertilizing), with a much lower wage of around 50-100 Yuan per day. For these villagers, their incorporation only brings them a bit of unstable income, while also leading to a lot of losses. Their losses not only include their exclusion from access to previously commonly-owned forest produce (e.g. firewood) which contributed to their income, but also the reduction of their agricultural yields due to the ecological impacts of nearby eucalyptus tree plantations. In this case, the villagers are dispossessed and (partly) converted into workers but do not migrate to urban areas. This is similar to what Watts and Little (1994, 81) describe as the 'disguised proletariats'.

In short, these villagers are included in the ITP sector in subordinated positions due to their limited/lack of control over the means of production or access to alternative opportunities. As a result, they do not benefit from the ITP sector and some even become more vulnerable because of their incorporation.

6.3.3 Passive exclusion

Similarly to the passive inclusion group, this group of villagers also controls little means of production and has limited access to alternatives. However, these villagers are left in a worse situation, since they are completely excluded from the ITP sector, either due to a lack of social capital or illness.

In one of the villages I visited in Guangxi, the collectively-owned land had been leased out to other investors to build ITPs. Most of the villagers did not receive rent directly. The majority of them did not have the financial or social resources to acquire forestland anywhere else to plant eucalyptus trees, and their allocated tiny farm plots were necessary for food production. Thus, with the rise of the ITP sector, villagers had no land available to plant eucalyptus trees. As expressed by a production team leader in that village: "at that time, we did not know that the price of the tree was so high. If we had known, we would have distributed the forestland to each household to plant trees by ourselves" (Field notes, 2 March 2016).

Without temporary work in the eucalyptus tree plantations nearby or access to alternative off-farm jobs, these villagers are left in a vulnerable situation. As one villager described, "all the land (forestland) in the village has been contracted. Where can I find land to cultivate? Now I just stay at home. No work (referring to off-farm work) can be found" (Field notes, 3 March 2016). This resonates with what Tania Li (Li 2011) described: "their land is needed, but their labour is not".

In addition to being excluded from the ITP sector, some villagers have lost their original income and been negatively impacted by the ITP sector due to the land control and land-use changes of their collectively-owned land. Firstly, such land control changes tend to exclude some villagers who used to get some income from these plots. As mentioned in part 5.3.1, villagers in one village in Hepu County used to cut firewood to support the family's daily expenses. After Stora Enso leased their collectively-

owned land, they were no longer able to earn this income (Field notes, 2 March 2016).

Secondly, the land-use change affects nearby farms because of the significant ecological impacts of the ITP sector. One villager interviewed explained that: "since planting eucalyptus trees, the land has almost no water. No springs come out. Now no matter what crops are planted, they do not grow" (Field notes, 3 March 2016). Similarly, affected by the high water demand of eucalyptus trees, all of the 25 villagers interviewed either stopped cultivating paddy or reduced the cultivation of paddy from two rounds to one round per year on their tiny farm plots (usually less than 0,1 mu per person).

These villagers are thus completely excluded and not able to benefit from the ITP sector, as they are not connected to the value chain. Moreover, when they lack alternative livelihood sources, these villagers become even more vulnerable, as they are left exposed to the negative impacts caused by large-scale land control and land-use changes.

6.3.4 Active exclusion

Not all villagers excluded are as vulnerable as the above group. Some villagers do not plant eucalyptus trees as they have better choices as a result of their abundant resources (material, financial and social), as already mentioned in Chapter 5.

Some of them control sufficient means of production, but choose not to plant eucalyptus trees. Some villagers prefer sugarcane, while others use their land for fruit trees. Their choices are based on careful cost and benefit calculations. Some of the villagers might not have control over large landholdings, but have access to other profitable off-farm work, including upstream and downstream businesses connected to the ITP sector. For these villagers, although they only own tiny plots, they can still acquire enough land using their financial capital if they want to engage in the ITP sector. Thus, their exclusion from the ITP sector is due to their own choice and calculation.

This group of villagers thus has the capability and autonomy to engage in the ITP sector. By making their own calculations, they choose to be actively excluded from the sector. For them, although they do not benefit directly from the ITP sector *per se* and might also be affected by the negative ecological impacts of the ITP sector, they are not considered vulnerable and some might even profit from the rise of the ITP sector if they

engage in upstream/ downstream businesses (e.g. timber processing and timber transport).

Based on the typology above, villagers' attitudes towards the economic value of the ITP sector can be reconsidered. As shown in Table 6.2, villagers who are actively included in the ITP sector give it the highest evaluation, and those who are passively excluded give the lowest rating on the economic value of the ITP sector. Meanwhile, villagers who are incorporated in a subordinated way have a lower opinion than those who are excluded because of their own choice. The difference between their attitudes is significant. In other words, villagers' different engagements with the ITP sector notably affect their attitudes to the gains or losses associated with the expansion of the ITP sector. Villagers who control the production process and outputs of the ITP sector (Type A) believe they can gain from the ITP sector. Contrarily, villagers who are adversely incorporated into the ITP sector (Type B) do not think so. Most of those who are passively excluded from the ITP sector (Type C) claim they lose from the expansion of the trees, and are much more pessimistic than those who are excluded actively (Type D). The result is in line with the qualitative analysis above.

***Table 6.2** Different types of villagers' perceptions of the economic value*

	N	*Means*	*Sig*
Type A: active inclusion	66	3,121	0,045
Type B: passive inclusion	14	2,643	
Type C: passive exclusion	13	2,385	
Type D: active exclusion	11	3,000	

Source: Interviews in March to April 2016 in Guangxi; 1 = very low economic value, 5 = very high economic value.

Therefore, underlying the expansion of the ITP sector, the scenario in rural Guangxi is not as simple as "villagers being dispossessed or even displaced" by capitalists related to large-scale land control and land-use changes. With different resource endowments (both material and social) and embedded in the specific politico-economic environment, some villagers become incorporated while are excluded, either actively (voluntarily) or passively (forcibly). In a more complex way, because of their distinct

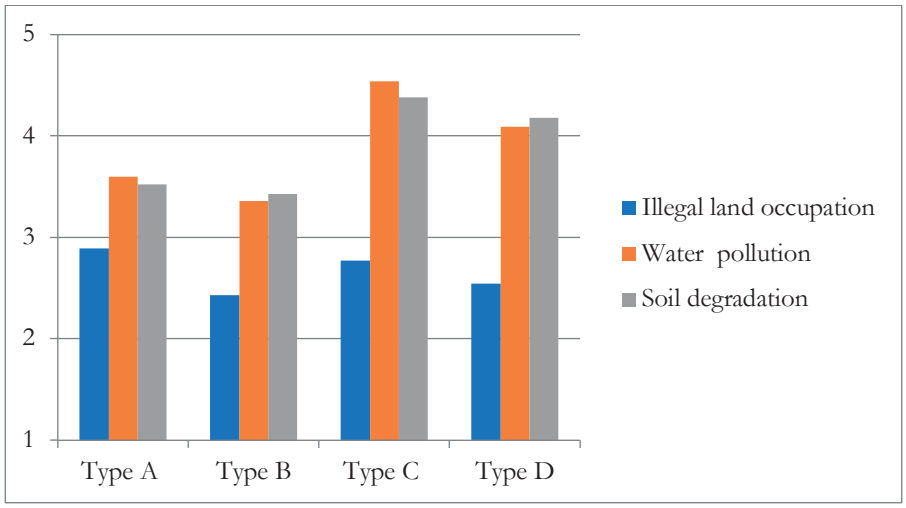
capability and autonomy in controlling the means of production, production process and outputs, and their access to alternatives, those who are incorporated might become more vulnerable, and those who are excluded might not lose out.

However, such a typology is not static: villagers who are actively included, might lease out their land (due to income emergencies) and shift their situation into passive inclusion; villagers who are temporarily hired in the ITPs might lose their work and become excluded; and villagers who are actively excluded might decide to get involved in the ITP sector due to changes in the market.

6.4 Perceptions of the affected villagers

As analysed above, these four types of villagers are affected differently by the expansion of the ITP sector due to their distinct positions within or outside the value chain. Accordingly, they have different perceptions of the ITP sector, especially about its impacts on land control and the environment.

***Figure 6.2** Villagers' grievances towards land and environmental issues*



Source: Interviews in March to April 2016 in Guangxi. 1 = low grievance level, 5 = high grievance level

As shown in Figure 6.2, villagers' perceptions of fairness or justness are concentrated on the environmental degradation caused by planting eucalyptus trees. The affected villagers complain that eucalyptus trees absorb too much nutrition and water, which affects crops (e.g. sugarcane) planted nearby. They also mention the negative ecological impacts on their livelihoods: "now the paddy cannot be cultivated. Since the investors started to plant eucalyptus trees, here is very little water and it has become very dry. We can only plant some maize and peanuts. But (whether to harvest) still depends on the weather" (Field notes, 2 March 2016). Some of the villagers are also worried about health problems caused by the ITPs. They claim that "eucalyptus trees are poisonous. Now the water flowing down from mountains (where the eucalyptus trees are planted) is all black" (Field notes, 18 February 2016). Although many of the included villagers also mention such negative environmental impacts, those who are excluded (both actively and passively, type C and type D) express more grievances about the environmental issues caused by the ITPs.

In terms of land issues, villagers' perceptions of unfairness or unjustness were not significant (less than 3) during my fieldwork interviews. In the villages where collectively-owned forestland was allocated to each household, most of villagers claimed that land was distributed to every household and therefore illegal land occupations have not occurred. Some of these villagers complain about the shade caused by eucalyptus trees planted on the nearby farmland plots. They see this as a kind of land occupation that will affect their food production. In villages where forestland was distributed based on the principle of "first occupation" or customary occupation, some villagers complained that some elites were able to occupy more land due to better access to information. As explained by a villager during a focus group discussion:

> In the past, this used to be an undistributed wasteland hill...That one (referring to the ex-leader of the village) must have known it (referring to information about the economic value of eucalyptus trees) from the county government. The (collectively-owned) forestland would have been distributed that year, but he occupied a lot of land himself. Other people around saw it. Then they also started to occupy the land (Field notes, 11 March 2016).

In the villages where collectively-owned forestland has been leased to outside investors, the villagers' concerns are more about land rent. In a news report in *Economy & Nation Weekly*, an employee from the Guangxi

Forestry Department mentioned that the price of forestland in the province has increased more than 10 times since the land leasing started, so "there are huge conflicts" (Zhang 2010a). Conversely, those who lease the land to plant eucalyptus trees usually complain about land encroachment onto their ITPs by local villagers. The villagers who are actively included (Type A), especially the owners of large-scale ITPs, have relatively more grievances about illegal land occupations due to encroachment by nearby villagers. These planters complain about becoming the target of resistance from other villagers.

In short, villagers who are passively excluded (Type C) generally express more grievances towards the ITP sector, especially related to environmental concerns. Conversely, villagers who are incorporated into the ITP sector have significantly fewer grievances about its negative ecological impacts. However, among the four types, the differences in villagers' attitudes towards land grabs caused by the ITP sector are not significant, partly due to their distinct understanding of land occupation.

6.5 Differentiated political reactions by the villagers

Although almost every villager has some complaints about the ITP sector, not all of them have transformed their complaints into resistance. Some villagers support the expansion of ITPs, while some resist in either overt or covert ways. As summarized in Table 6. 3, villagers who benefit from the ITP sector (Type A) generally embrace and even try to push forward the development of ITPs. Villagers who are adversely incorporated into the ITP sector (Type B), do not show obvious opposition towards the sector itself, but engage in political struggles for the improvement of their inclusion (e.g. increasing the land rent). As the most vulnerable group, villagers who are passively excluded (Type C) tend to engage in resistance to the sector. Type D villagers are mostly indifferent to the rise of ITPs, except in a few cases when they covertly resist because their livelihoods are affected by negative ecological impacts.

***Table 6.3** Villagers' different political reactions to the rise of the ITP sector*

Types of villagers	*Gain or loss within ITP sector*	*Political behaviour*	*For land rights*	*For environmental justice*	*For economic gain*
A	Benefits	Support			X
B	Little benefit; some even with losses	Modification	X		X
C	Losses	Resistance, modification	X	X	X
D	No losses; even benefits	Indifference		X	

Source: Summarized from the author's in-depth interviews and observations in Guangxi

Specifically, although most Type A villagers agree that the ITP sector has negative ecological impacts, they still keep planting eucalyptus trees, because "we farmers are practical (make a living)" (Field notes, 22 February 2016). Put more extremely, one villager in Xiangzhou County explained: "we farmers will run to where the greatest profits are. As long as it will not poison people immediately, we will plant what can bring the most money" (Field notes, 17 February 2016). In this sense, these villagers' support for ITPs is due to their individual pursuit of profits.

Instead of taking action against the ITP sector, this group of villagers (Type A) takes measures to secure and expand their control over it. To give an example, one villager who leased 200 mu of forestland in another village on which to plant eucalyptus trees, paid around 2000 Yuan per month to a local villager to protect his ITPs from being stolen or destroyed (Field notes, 12 March 2016). In another case, a villager who already owned 150 mu of trees, lent money to another planter to enable him to buy chemical inputs, in exchange for a contract to purchase his trees at a certain price in four years (Field notes, 18 March 2015).

In contrast to Type A villagers, villagers who are passively included (Type B) do not benefit much from the ITP sector. Their priority is to improve their terms of incorporation rather than resist the ITPs' encroachment into their villages. As described by a villager in Hepu County, "we are poor. There is no other choice. [Leasing the land] can get some money, so we all want to lease the land out" (Field notes, 3 March 2016).

Thus, these villagers' actions are mainly against unpaid rent and underpaid labour in the ITPs, ranging from overt litigation to covert pilfering and sabotage. Some of the actions are against investors, as is highlighted by the conflicts between villagers and Stora Enso discussed by Ping and Nielsen (2010a). Similarly, according to the report in *Economy & Nation Weekly*, in a village in Pubei County, villagers contracted their land to APP on terms of cooperation. They received no payment after two rounds of logging, so they denied APP's request to log again. One villager in Pubei County explained, "Seedlings are from APP, but the land is mine. Why do they think they can log the trees when the price (of the land share) is not acceptable?" (Zhang 2010a). Some of these actions were also against other villagers, understood as the "poor-versus-poor" type of conflicts mentioned by Borras and Franco (2013). Such disputes are not only concentrated on the uneven access to land between rich and poor families, as was the case in one type of conflict in Vietnam (McElwee 2009, McElwee 2012), but are also related to the distribution of the benefits derived from plots with ambiguous land rights attached to them. One example is given by a villager in Hepu County (Field notes, 3 March 2016):

> Villager: Here family X used to have a gang fight with family Y over a boundary of forestland which has already been leased out to Stora Enso.15
>
> Author: For land rent?
>
> Villager: Yes.
>
> Author: But isn't the rent very little?
>
> Villager: Even though it´s little, they still want it

Villagers who are passively excluded (Type C) suffer the most from the expansion of the ITP sector. Accordingly, their opposition is more significant. It can be encapsulated in the case of a village in Hepu County where a large number of villagers are passively excluded (as was mentioned during the analysis of passive exclusion above). According to a villager interviewed:

> In our village, none of the 10,000 mu eucalyptus trees have been harvested… Recently, the trees were all burnt down. They were burnt while there was only one year remaining before the trees were ready to be logged. Also, individuals tend to steal their trees. They (the thieves) are hardly ever caught. They steal the trees to sell… I do not know about the situation in

> other villages, but in our village, the bosses (referring to the ITP investors) have never harvested their trees (Field notes, 1 March 2016).

These Type C villagers resist the ITP sector through litigation, pilfering, arson, sabotage and land encroachment, which are all forms of overt "rightful resistance" (O'Brien et al. 2006), and covert "everyday forms of peasant resistance" (Scott 2008). They engage in the struggles for two main reasons: First, their resistance can be understood as revenge for their livelihoods being undermined. Second, some of their actions are aimed at incorporation. To give some examples, encroaching onto the land acquired by large landowners enables the villagers to get access to some land to plant eucalyptus trees; stealing a tree is a way for villagers to share part (although very little) of the benefits from the ITP sector; and blocking the road is a strategy for villagers to get some compensation.

In contrast to the above group, Type D villagers have alternatives. They seldom conduct any overt actions against ITPs. As claimed by one villager in Guangxi, "the trees belong to Stora Enso. How does it have anything to do with us?" (Field notes, 3 March 2016). However, there is some covert resistance for environmental justice, mainly done through the internet. In few cases, however, these villagers take more radical actions (e.g. subtle sabotage) when their livelihoods are impacted, as explained by a villager in Guangxi:

> When planting eucalyptus trees too close, another villager will burn down the trees because the roots of the eucalyptus tree will stretch towards where the sugarcane grows. The nutrients will then be extracted by eucalyptus trees, and the trees will shade the sunshine. The trees of those households who plant eucalyptus trees in the middle of farmland and migrate out will be destroyed (Field notes, 17 February 2016).

In short, the four types of villagers tend to have different reactions to the expansion of the ITP sector. However, the cases outlined above do not intend to build automatic linkages between individual situations and a certain type of political reaction. In reality, villagers' actions are the result of far more complex processes, influenced by the politico-economic context and individuals' own experience, interpretation, and calculation. Thus, not all of the villagers will take visible action – especially when the actions are high risk.

The scenarios described above are certainly not static, but change dynamically along with villagers' engagement and political opportunities.[16]

As mentioned above, villagers might change their position within or outside the ITP sector value chain. Accordingly, their attitudes and possible reactions towards the expansion of the sector will also alter. In this context, Borras and Franco (2013, 1733) remind us that:

> Changing political opportunity structure can partly influence poor people's decision to engage in overt political contention to struggle around their expulsion, either against their expulsion or to demand some kind of compensation or better terms of compensation.

This highlights how affected villagers will adjust their response strategies to the expansion of the ITP sector along with social and institutional changes (e.g. policy changes and changing social relations). Villagers' different political responses can partly (re)shape the socio-economic structure in rural communities (including the actions of the investors and the state), which in turn might influence villagers' engagement and political opportunities. Thus, this process becomes even more complicated.

6.6 Further discussion on villagers' political actions

Four key points emerge for the development of a more comprehensive understanding of political reactions from below.

6.6.1 The flexibility of villagers' actions

We see diverse and flexible strategies by those who resist or struggle against the expansion of ITPs. Villagers' weapons range from litigation to pilfering, arson, sabotage, and land encroachment. Villagers typically avoid direct confrontation with powerful groups, making their resistance more tolerable to authorities. Additionally, as "leaderless and nebulous movements like Karen-style village resistance" (Malseed 2008, 504), most of the villagers' resistance in Guangxi is spontaneous, adaptable, and difficult to attack or co-opt. According to an employee of a state-owned farm, these features are explicit:

> Villagers who live near our forestland come and chop the trees (the state farm planted). They sometimes even put down some herbicide. Once the trees die, the villagers occupy the land by growing some vegetables or sowing some hemp seeds. Villagers encroach the land little by little every year…Villagers have time. Their land is just a few mu, and located where they can easily monitor it. So no one else is able to occupy their land (Field notes, 10 March 2015).

Moreover, with the development of technology, villagers have an additional tool which facilitates their resistance, namely the internet. Most villagers currently have internet access. Villagers are able to post their complaints on the internet, for example through "Weibo" (the Chinese version of Twitter), or on a web forum. The anonymous feature of the internet reduces the political cost of their resistance, and the prevalence of the internet makes it easier to raise public concern and extend the reach of their political action very quickly. When a piece of news about illegal forestland expropriation is posted on Weibo (especially if there are photographs attached to prove it), it may be shared millions of times within a couple of minutes and soon gets the public's attention, as well as that of the authorities.

As shown in the discussion above, villagers are thus not purely defenceless victims. They have their own weapons, which can be useful under certain institutional arrangements.

6.6.2 *Beyond the common assumption of "villagers against foreign companies"*

Villagers' political reactions are much more diverse than the common assumptions of the "villagers against foreign companies" scenario in current debates on global land politics. Firstly, villagers´ actions are not limited to "resistance", but also include "support, compliance, modifications and evasions" (Kerkvliet 2009, 233). This is because villagers have different levels of control over the means of production, the production process and outputs, and varied access to alternative livelihoods. Secondly, foreign companies are not the only actors that the villagers resist against. As Borras and Franco (2012) argue, foreign capital is not the sole power that leads to large-scale land control changes. In the case of the ITP sector in Guangxi, domestic private companies, state-owned companies, individual entrepreneurs, the state, and local elites all play a role in the expansion, either as direct land recipients or as indirect facilitators. Thus, they all might become the targets of resistance when villagers' interests or even subsistence are seriously affected. Additionally, villagers' struggles are not only around land control and targeted at "grabbers", but are also related to the distribution of benefits among villagers. Thus, villagers sometimes also resist their fellow villagers, highlighting that villagers' conflicts have more complicated contours. It could be "poor people versus corporate actors, poor people versus the state, and poor people versus poor people" (Borras and Franco 2013, Margulis, McKeon, and Borras 2013, Hall et al.

2015). In sum, an over-simplified framework cannot capture the complicated trajectories of villagers' political reactions on the ground.

6.6.3 Beyond land access

In most of the literature about political reactions to large-scale land-use and land control changes, the focal points of conflict are usually land. However, as highlighted by Paige (1978), sources of income will lead to different conflict focuses. According to Paige (1978, 18):

> A noncultivating class drawing its income from land tends to be economically weak and must therefore rely on political restrictions on land ownership. These restrictions tend to focus conflicts on the control and distribution of landed property. A noncultivating class drawing its income from commercial or industrial capital is usually economically strong and requires fewer political restrictions on land ownership, and conflict therefore tends to be focused on the distribution of income from property, not the ownership of property itself.

My study shows that land is important but not the only determinant in villagers' politics. If villagers only draw their income from land, the conflicts are focused on the control of the land. However, in rural China, a large number of villagers get their income from non-agricultural sectors rather than land *per se* (Ye, Wang, and Long 2009). For them, "farming income is just pocket money" (Field notes, 22 February 2016). Thus, with the expansion of ITPs, some conflicts are focused on the distribution of profits derived from the sector and protecting villagers' livelihoods from being affected by the sector, rather than on land access itself.

To take the discussion a step further, a large part of villagers' concerns are centred on how to make ends meet or get more income. When land is the villagers' primary source of income, they are more likely to take actions when they lose – or face the threat of losing – control over it. When their land provides very little income, villagers pay less attention to maintaining control over it. During my fieldwork in Guangxi, several villages welcomed a land consolidation programme (called "*Shuang gao"* or "*Xiaokuai bian dakuai*").[17] Some villagers were even eager to transfer their land control for rent, as was pointed out repeatedly by one villager from a village in Xiangzhou County where the programme has not yet been introduced: "After my land is expropriated (refers to joining the programme and leasing the land out), I will start to have money" (Field notes, 21 February

2016). Additionally, villagers whose incomes are mainly derived from alternative off-farm work are less likely to resist land control. If this group of villagers resists, it is usually covertly and because of negative impacts on their livelihoods.

Thus, to understand the complicated trajectory of political reactions within large-scale land-use and land control changes, we must take into account the actual interests of different villagers as a unit of inquiry, rather than simply focusing on land access.

6.7 Conclusion

This chapter has presented the dynamics of diverse political reactions from below, based on villagers' different linkages with changes in land-use and land control. It notes that varying interests and resource endowments (e.g. land, labour and social resources) differentiate villagers. Meanwhile, it considers the specific politico-economic environment that these land-based changes are embedded in, including relevant institutional settings, market access, and state intervention.

This chapter challenges the dichotomy of "exclusion versus inclusion", as this oversimplifies reality. In other words, exclusion from a booming sector might not be a passive choice made by the villagers in a certain politico-economic context. Thus, it does not necessarily cause villagers to lose out, and in some cases it may even benefit them. In contrast, inclusion might not be due to villagers' own initiatives. Under certain terms, incorporation even places villagers in a more vulnerable position. The empirical data demonstrates that the terms of inclusion and villagers' access to alternative livelihood opportunities are closely related to the wins and losses of affected villagers. Based on these two factors, this Chapter offers a more complex typology which includes passive inclusion, active inclusion, passive exclusion, and active exclusion. Following this nuanced typology, this Chapter analyses the affected villagers' distinct positions within the ITP sector and their different political responses.

This chapter explores the divergence of villagers' political reactions, arguing that they are far more complicated than simply the "excluded villagers resisting against expulsion/dispossession" scenario portrayed by recent land grabbing literature. The three main scenarios are: (1) Villagers do not only resist exclusion, but also struggle for better terms of incorporation and to reduce the negative impacts on their livelihoods; (2)

Villagers not only resist land investors, but also villagers; and (3) Conflicts are not only about land, but are also about the distribution of social, economic, and environmetal benefits and costs. To understand such dynamics, this study reveals the need for a systematic examination of villagers' actual interests in the context of land-use and land control changes based on their different positions within the value chain.

Notes

[1] Part of this chapter has already been published in Xu (2018b)

[2] There have been some studies that point out the division among rural dwellers during land use and control changes (Gerber 2011a, McElwee 2009, McElwee 2012).

[3] Although there have already been a few studies that have pointed out environmental conflicts over ITP sector (Gerber 2011a, Gerber and Veuthey 2010).

[4] There used to be many studies conducted about plantation workers' struggles for the improvement of their terms of inclusion. However, the current focus in academia has shifted to the struggles of the excluded.

[5] Villagers who are only involved in the upstream/downstream business and do not engage directly in the ITP sector are also part of the excluded group.

[6] For example, the loss of control of the land they originally used and the crop yield losses caused by the negative impacts of the ITP sector.

[7] Only when $p<0.05$ is the difference significant.

[8] The question was: Do you agree that villagers´ income has increased with the rise of the ITP sector? The possible answers were 1: strongly disagree; 2: disagree; 3: neither agree nor disagree; 4: agree; 5: strongly disagree.

[9] In Ukraine, the largest share of direct and indirect agricultural subsidies is given to large agribusinesses, while private family farmers and rural households operate with hardly any state support. Besides that, private family farmers have to compete with large agribusiness for access to land and associated resources (e.g. grain storage facilities). This makes then financially disadvantaged, as they are unable to pay the market price for the use of those resources.

[10] Except for a small part of the hilly land already allocated through the HRS reform, most of the forestland remained in the hands of collectives.

[11] During my fieldwork in 2016, villagers in only one of seven villages mentioned that they receive 100 Yuan per year as rent for their collective land. Villagers in other villages either said that they never hear about the land rent or mentioned that land rent remains in the collective for public activities.

[12] There are also some villagers in Guangxi who transferred their land control as an active livelihood choice (e.g. those who migrated to urban areas), but they do not belong to this group.

[13] According to the data from my interviews, the percentage ranges from 30% to 50%.

[14] Unit for the measurement of weight: 1jin = 0,5kg.

[15] Here I replaced villagers' family names with X and Y.

[16] In this chapter, in accordance with (Borras and Franco 2013, 1475), the political opportunity structure is understood as "structures of political opportunities and threats that are critical contexts for collective actions".

[17] More details about the project are in part 2.4.

7 Chapter 7: conclusion

This study set out to investigate the central research question: *Why and how did the industrial tree plantation sector expand in Southern China, and what implications does it have for the livelihoods of villagers?* With a critical agrarian political economy and political ecology analytical framework, this study explores the dynamics of the ITP sector's expansion in Southern China, contextually, interactively, and dynamically. This study demonstrates that the rise of the ITP sector emerged under particular economic, political, and social conditions worldwide and in China, while the contours and trajectories of the ITP sector are (re)shaping and are (re)shaped by the land, labour and livelihood conditions in Southern China in a dynamic and relational way.

Furthermore, in response to the recent political discussion around accumulation and dispossession of land (see the assumption in Chapter 1), this study argues that villagers are not necessarily dispossessed of their land, neither are they always converted into landless labourers that mostly facilitate the development of the urban industrial sector. Instead, with the rise of the ITP sector in Southern China, a few villagers are able to actively get incorporated into and benefit from the booming sector. Moreover, a few villagers even have the capacity to accumulate more land with the financial capital (wage incomes) they gain from urban industrial sectors. Thus, there is a reverse flow of capital and labour from urban to rural areas.

Why has the ITP sector emerged and expanded so massively and quickly in Southern China over the past two decades? The rise of the ITP sector in Southern China is caused by both externally imposed and internally-driven factors, including Chinese domestic demands for its outputs,

agronomic conditions in Southern China, the institutional settings around land and labour, and the financial capital, especially the foreign capital, involved. These factors have created intertwined value, material, institutional, and financial bases for the expansion of the ITP sector.

How did the ITP sector emerge and expand? With the rise of the ITP sector, extensive changes have emerged in land-use and land control and labour condition. The changes in land-use and land control are dominated by distinct actors using diverse mechanisms. Following the changes around rural land, labour conditions in the rural areas also changed. In contrast to most studies on migration in rural areas which describe a massive labour flow from rural to urban areas, the development of the ITP sector has witnessed a reverse labour and capital inflow from urban areas. During this process, the state has played a critical and complicated role, both promoting and impeding the development of the sector.

What are the implications of the ITP sector on rural villagers in Southern China in terms of the political economy of their livelihoods? With the changes in land and labour, villagers' livelihoods are inevitably affected. However, villagers are not necessarily excluded by and do not necessarily resist the sector because of their expulsion and/or their environmental concerns, as has happened in many other places over the world where the ITP sector has expanded. Rather, villagers are affected differently in relation to the dynamics of their inclusion and exclusion in the sector, covering both 'passive' and 'active' forms of inclusion and exclusion. The politics of inclusion and exclusion, in turn, result in far more diverse political reactions from these villagers.

The remainder of this chapter elaborates on the main arguments in this study on the dynamics of land, labour and livelihoods, and the mechanism of accumulation during the inclusion/exclusion process. The chapter then discusses some of the implications of this for research into land politics.

7.1 Changes in land-use and land control

As illustrated throughout this dissertation, the rise of the ITP sector in Southern China was followed by massive changes in land-use and land control. These changes are not uniform, but have many faces due to the dynamics within the development of the sector. Firstly, as already analysed in Chapter 2, Chapter 4, and Chapter 5, the ITPs are of various sizes and

are exploited by various planters/investors, ranging from transnational paper-pulp companies, Chinese state-owned forest farms, domestic private companies, individual entrepreneurs, and independent planters. This thus means that the expansion of the ITP sector involves diverse mechanisms of land acquisition and multiple directions of land-use change. Secondly, as mentioned in Chapter 3, Chapter 5, and Chapter 6, the development of the ITP sector is not linear. Due to dynamics among the key actors (the state, investors and villagers), some ITPs might change hands and/or shift to some other land uses.

There are four main directions in the trajectory of land-use change around the ITP sector, as summarized in Figure 7.1. With the rise of the ITP sector, some land plots previously dedicated to food production (e.g. sugarcane and cassava) were converted into ITPs (Type A). These land plots included farmland and a small part of less hilly and rocky forestland. Such land-use change was mainly dominated by villagers, usually as an adaptive livelihood strategy as analysed in Chapter 5. In a few cases, it also involved foreign and domestic companies. Such land-use change might provoke conflicts between planters and the neighbouring landowners due to the negative environmental impacts of the tree crop, especially when the land-use change emerged on land adjacent to plots which are still used for food cultivation, as presented in Chapter 6.

***Figure 7.1** Typology of land-use change with the rise of the ITP sector*

Type A Food to ITPs	Type B Other non-food to ITPs
Type C ITPs to food	Type D ITPs to other non-food

A large number of ITPs were converted from forestland that used to plant other non-food crops (Type B). Most of these forestland plots remained degraded, with pine trees or acacia trees planted dispersedly.[1] This does not mean that these land plots are actually waste. As revealed in Chapter 4, a few villagers did get some income from the forest products (e.g. firewood). Thus, such land-use change might violate the livelihoods of some villagers and then cause conflicts.

However, such land-use change is not static. Due to various economic, social, and poltical reasons, some ITPs convereted back into the cultivation of food (Type C), or other non-food crops (Type D). As mentioned in Chapter 6, on encountering resistance from below, the local state started to halt the rapid expansion of the ITP sector in 2014. With the intervension of the state, some state farms changed part of their eucalyputs tree plantations into pine tree plantations. Similarly, due to the removal of eucalputs trees planted on farmland orgainzed by some county governements, a few villagers changed their land-use of these farmland plots back to food production (e.g sugarcane), as described in Case 8 in Chpater 1. In addition, land-use change also emereged due to a few villagers' livelihood choices when considering the risks casued by market volatility and uncertain agronomic conditions (e.g. the weather), as mentioned in Chapter 5. This reminds us to make a more careful exploration of the past, present, and future trends in land-use.

The above shows a far more complicated trajectory of land-use around the ITP sector than in other regions worldwide. The rise of the ITP sector is not accompanied by large-scale deforestation, as demonstrated by cases in Ecuador (Gerber and Veuthey 2010). In China, most of the natural forests in Guangxi were destroyed in 1935. Thus, the forestland used to build ITPs was either degraded or already used for the cultivation of inedible/edible crops. Furthermore, some eucalyptus trees were planted on the tiny and fragmented farmland plots which were previously devoted to food production. This indicates that, compared with those ITPs transformed from natural forests, ITP's encroachment into Southern China had a distinct impact on villagers and the environment.

As most of the farmland plots were fragmented when contracted to households during the HRS, in Guangxi the land control changes linked to the ITP sector did not commonly take place on farmland, but on state-owned or collectively-owned forestland as shown in Table 7.1. As analysed in Chapter 4, state-owned forestland was contracted to foreign companies

facilitated by local governments. In a few cases, the land was accessed by the investors in the form of cooperation. Similarly, the collectively-owned forestland was also (sub-)leased to investors, including foreign companies, domestic private companies, state-owned farms, and individuals. Some of this land leasing involved middlemen, who leased land from rural collectives/individual villagers and then re-contracted it to investors. Meanwhile, some of the forestland plots originally controlled by villagers, either via the HRS reform or customary occupation, were transferred to investors through lease or cooperation deals.

***Table 7.1** Typology of the change in land control around the ITP sector in Guangxi*

Type	*Property rights*	*From*	*Via*	*To*	*Mechanism*
A1	State-owned	State farms	State-owned company	Foreign/domestic investors	Leasing
A2	State-owned	State farms	State-owned company	Foreign/domestic investors	Cooperation (share-holding)
B1	Collectively-owned	Villagers	-	Foreign/domestic investors	Leasing
B2	Collectively-owned	Villagers	-	Foreign/domestic investors	Out-grower contract
B3	Collectively-owned	Villagers	-	Foreign/domestic investors	Cooperation (share-holding)
B4	Collectively-owned	Villagers	Middlemen (local/outside)	Foreign/domestic investors	Leasing
C1	Collectively-owned	Village collectives	-	Foreign/domestic investors	Leasing
C2	Collectively-owned	Village collectives	Middlemen (local/outside)	Foreign/domestic investors	Leasing
C3	Collectively-owned	Village collectives	-	Villagers	Customary occupation

However, the change in land control is not a one-way process. As a response to conflicts, some investors were observed to return part of their

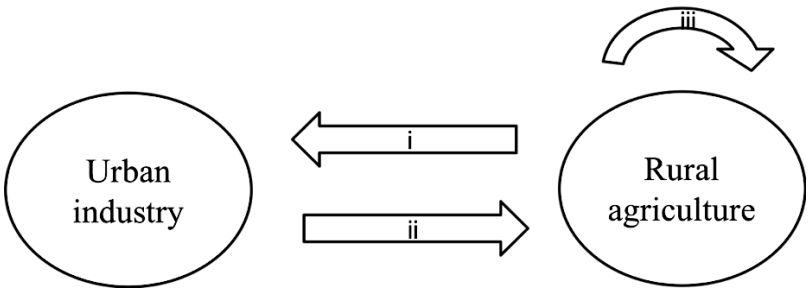
land back to rural collectives or villagers, as illustrated by the case of Stora Enso in Chapter 4. Likewise, faced with crop failure due to frequent typhoons, arson, and tree thefts, a few investors subcontracted their land to other investors (see Chapter 4 for the case of APP).

With the change in land control, land-based wealth and power was also (re)distributed. It led to distinct impacts on investors, state-owned farms, and villagers. Investors gained access to land via different channels, more or less facilitated by the state. Meanwhile, they had to deal with different forms of resistance to their land acquisitions. As to the state-owned farms, on the one hand they lost a large part of their land when foreign paper-pulp companies (mainly Stora Enso) came to acquire land for the construction of ITPs with the strong support of the provincial government. On the other hand, to compensate such land loss, they contracted large-scale forestland from rural collectives, facilitated by the local state. Villagers, were affected differently. Some villagers, especially the "rural poor", were dispossessed of the collectively-owned forestland that they had previously been able to use. In contrast, a few villagers, those intimate land grabbers analysed in Chapter 5, were able to gain control over more land. In this sense, the change in land control led to further differentiation among villagers.

7.2 Changes in labour conditions

In the course of the rise of the ITP sector, the labour conditions in Southern China also changed. Villagers were observed to migrate (i) from rural to urban areas, (ii) from urban to rural areas and (iii) from rural to some other rural areas, as shown in Figure 7.2.

***Figure 7.2** Labour flow during the rise of the ITP sector*



First, some villagers migrated to urban areas or nearby towns to seek waged jobs, while keeping eucalyptus trees planted at home. Such an arrangement is closely related to the labour-saving characteristics of eucalyptus. During my interviews in the spring 2016, 69% of those households with family members doing migrant work chose to plant eucalyptus trees at home.[2] Furthermore, 78% of the households that planted eucalyptus trees had at least one family member who migrated to an urban area.[3]

However, this does not mean that villagers' migration is directly caused by the rise of the ITP sector. For some villagers, the wages from migrant work were their main source of income. In such circumstances, planting eucalyptus tree were treated as an additional livelihood choice if they had land resources. As explained by a villager, "When (we) plant eucalyptus trees, we migrate to do wage jobs. When (we) do not plant eucalypts trees, we also migrate" (Field notes, 3 March 2016).

Second, as illustrated in Chapter 5, a few villagers, mainly intimate land grabbers, gave up waged jobs in urban areas, went back to rural areas and used the income earned from the industrial sector to invest in the ITP sector. Whereas a number of scholars have argued that large numbers of villagers migrate from rural to urban areas as cheap wage labour in the industrial sector to facilitate capital accumulation in contemporary China (Arrighi 2007), the above shows an opposite direction of labour and capital flow: *from urban to rural*.

Third, there are also some villagers who moved from being subsistence farmers to being plantation workers, and who came not only from local villages, but also from villages further away, even other provinces. This indicates an alternative trajectory of rural labour migration which has thus far been little explored: *from rural to rural*. These villagers left their hometown and came to work for the ITPs (e.g. tree planting, weeding, or logging). These migrant workers are preferred by some investors, especially local grabbers, as analysed in Chapter 5.[4]

Considering that the ITP sector is a labour-saving sector, this crop boom thus actually created very few job opportunities for the local population. In this sense, those villagers who lost control over the land they had previously used (including the collectively-own forestland) found it difficult to get incorporated in the sector. They are therefore most likely to be completely excluded.

7.3 Changes in livelihoods

In the current literature on land politics, villagers, who are the original users of land, are commonly portrayed as victims within land grabbing: they lose control over the land they previously used. They are dispossessed, or even displaced, in a context where "their land is needed, but their labor is not" (Li 2011, 286). In response, villagers sometimes choose to resist these land deals in either overt or covert ways (Borras and Franco 2013), or to adapt (Mamonova 2015).

However, this study demonstrates that the role of villagers is not limited to this. Villagers are not homogeneous. They have distinct resource endowments, including land control, labour conditions, financial resources, and social relationships. Based on these factors, as shown in Chapter 5, when faced with the rise of the ITP sector, villagers' livelihood changes were diverse. A few villagers acquired land and became owners of ITPs themselves. Some villagers maintained their land control, with resilience enhanced through land-use changes. In addition, some villagers "stepped out" of the sector due to their access to better livelihoods elsewhere. Thus, during the expansion of the ITP sector, some villagers were dispossessed or adversely affected, while a few may have benefited and may even have dispossessed others.

7.4 Villagers' wins and losses: the typology of inclusion and exclusion and accumulation mechanisms

With distinct livelihood changes, villagers' positions within the value web of the ITP sector also vary. However, as demonstrated in Chapter 6, the common dichotomy of "exclusion versus inclusion" cannot capture the complexity of the dynamics in Southern China. In other words, those villagers who get included do not necessarily win, while those who are excluded do not necessarily lose. This reminds us to look further. In order to understand the actual wins and losses of affected villagers, this study therefore offers a more complex typology: passive inclusion, active inclusion, passive exclusion, and active exclusion, as shown in Figure 6.1. This nuanced typology considers the terms of inclusion and villagers' access to alternative livelihood opportunities.

Based on the above typology, villagers experience diverse trajectories of changes in land-labour relations and livelihoods. As already mentioned

in Chapter 1, these dynamics relate to the classic formulations of PA, ABD, and AWD.

When villagers are positively included in the ITP sector, they still maintain, and in a few cases even gain, control over land. At the same time, they work for the ITP sector, although not necessarily as cheap wage workers. In this scenario the land is not needed, but the labour is. In these circumstances, the villagers are not dispossessed, and sometimes even dispossess others (e.g. intimate land grabbing). Thus, for this group of villagers, the growth of the ITP sector is generally without dispossession.

In contrast to the previous group, villagers who are passively included control little (or even no) means of production and have little (or even no) access to alternative livelihoods. As shown in Chapters 5 and 6, among these villagers, except for a few who have a little land as a result of their natural resource endowments, most villagers lose control over land (mainly collectively-owned forestland) via either economic or extra-economic channels. Meanwhile, they do work in the ITP sector. Some are forced (passively) to plant eucalyptus trees on very tiny land plots (usually less than 1 mu) and are very likely to end up selling trees at a very low rate due to a lack of bargaining power. Others do get some job opportunities from investors, but this is always temporary and seasonal. Thus, the villagers are not completely expelled from the land, and are simultaneously converted into cheap labour. Both land and labour are needed. In other words, similar to Chuang's (2015) findings in rural China during the rise of capitalism, what capitalists want are both cheap land and cheap workers. The process contains elements of both Harvey's ABD and Arrighi's AWD. Under the worst occasions, villagers experience *dual accumulation* with the rise of the ITP sector.

The villagers that are passively excluded are those with little/no control over the means of production and have no access to alternative livelihoods. Similar to the above group, most of these villagers might have lost control of their land. What is worse, they do not get employed. This is a situation in which "the land is needed, but the labour is not", which is closer to accumulation by dispossession/primitive accumulation.

There are also some villagers who choose not engage in the ITP sector, as they have sufficient means of production and/or access to alternative livelihood sources. Thus neither their land nor labour is needed. They are not dispossessed by the expansion of the ITP sector.[5] This implies that for

these villagers, the encroachment of this sector into rural areas might not become a process of accumulation.

The above discussion is not intended to claim that all cases are neatly and fully captured by this typology. There are always exceptions. But the discussion helps to deepen our understanding of the dynamics within and between villagers' various engagements in the ITP sector and reflects a general tendency of differentiation among villagers within the rise of the sector.

Because of their distinct positions and diverse degrees of dispossession (or no dispossession), villagers have various perspectives on the rise of the ITP sector and tend to have various political responses towards the expansion of the sector. In turn, these political responses affect state policies and politics, and further shape the trajectory of the development of the ITP sector (see Chapter 3).

7.5 Insights into global land politics as seen from China

In its analysis of the case of China, this study presents a complicated trajectory of the ITP sector. However, I hope that the implications of this study are not limited to China and the study of ITPs. As a conclusion to this dissertation, I would like to highlight three key points, with the hope of contributing to a more comprehensive understanding of global land politics.

First, foreign land investments can emerge anywhere around the world, even in those countries that are normally perceived as being the home of land investors. In the literature on global land politics, China is cast as either a major land grabber in distant places such as Africa, or as a key context for crop booms elsewhere because it provides a massive market demand for crops such as soya from Southern America. This study shows that there are also foreign land investments inside China that involve transnational capital and investors. It reminds us that *capital accumulation is principally interested in geographic places and settings where it can generate profit*, which is not new but is critical for rethinking the nature of global land politics.

Second, in additional to large-scale and (transnational) corporate-dominated land investments, relatively small-scale land deals/transactions that are initiated by local villagers also exist. Correspondingly, local villagers are not always "victims" and "resisters", but sometimes investors or even

grabbers. While most studies focus on large-scale foreign corporate-dominated land deals, relatively small-scale land acquisitions initiated by local villagers receive much less attention. This reflects the fact that the scale of land acquisitions, the identities of investors, and a simplified view of the role of villagers tend to take precedence in analyses of land politics. However, over-focusing on these elements can be problematic and even misleading. This study demonstrates that: small-scale land transactions are not necessarily less significant than large-scale ones; local actor-dominated land control changes might sometimes have a more serious adverse impact on local communities. Furthermore, within land deals, villagers might also accumulate at the expense of their fellow villagers, rather than being simply victims or resisters. These are critical reminders to go beyond the dichotomies of "small vs. large", "outsider vs. local actors" and "victims vs. grabbers", and instead focus on the *dynamics of social relationships around land and production processes*.

Third, faced with extensive changes in land-use and land control, villagers' political reactions are highly diverse, stemming from their distinct resource endowments and access to alternative livelihood sources. Current studies focus on "the excluded villagers fighting against investors (mainly foreign investors)", while this study shows a more complicated scenario. On the one hand, villagers do not only resist exclusion, but also struggle for better terms of incorporation and to protect their livelihoods from being affected. On the other hand, villagers resist not only land investors, but also other villagers. Moreover, conflicts which emerge from land grabbing are not only centred on land issues. In some cases, conflicts are assoiciated with the distribution of social, economic, and environmetal benefits and costs becasue villagers' concerns are always centred on subsistence and economic gain, rather than land access *per se*. When land is villagers' primary source of income, they are more likely to take action if they lose control over the land. When their land provides very little income, villagers pay less attention to maintaining their control over it. Thus, villagers whose incomes are mainly from off-farm work are less likely to resist land grabbing. Furthermore, when villagers are able to benefit from the extensive changes in land-use and land control, they tend to embrace these changes. Hence, to understand the complicated trajectory of political reactions, instead of being "land-centric", the *differentiated interests of affected villagers and their wins and losses* should be the key unit of inquiry.

7.6 Epilogue

Grounded in a critical agrarian political economy and political ecology analytical framework, this study explores the dynamics of the ITP sector's expansion in Southern China. The rise of ITP sector over the past few decades involving both foreign and domestic actors has led to extensive changes in land-use and land control, as well as in the labour conditions and livelihoods of the villagers in question. Affected villagers have shown diverse political reactions to the encroachment of the sector.

However, as I have mentioned throughout this dissertation, the development of the ITP sector and the corresponding changes in land, labour, and livelihoods are not static, but full of dynamics. Changes in Chinese state policy and the global context will inevitably lead to further changes in rural land and labour conditions, which will in turn affect the trajectory of ITPs and other boom crops (e.g. sugarcane) in rural China.

By unpacking these dynamics, this study does not intend to champion the expansion of the ITP sector or applaud the positive changes of a few villagers (those who benefit, e.g. who are positively included and positively excluded). Instead, it hopes to reveal the diverse and dynamic nature of land politics and call attention to the marginalized and their struggles during the crop boom.

This study is focused on a specific sector (the ITP sector) in a specific area of China (mainly Guangxi), but the implications of it are expected to go beyond the sector and research region. On the one hand, this study illustrates an alternative trend in agrarian transformation in China: instead of rural labourers migrating to work in industrial sectors in urban areas, there is a reverse flow of labour and capital from industrial sectors in urban areas to agriculture sectors in rural areas. On the other hand, this study also relates to global land dynamics and rural politics in other countries. It offers a more refined trajectory of global land politics and highlights the differentiation among villagers during a crop boom and the corresponding changes in land-use and land control.

Furthermore, in addition to the dynamics of land, labour and livelihoods discussed above, intra-household, inter-generational and gender dynamics have a role to play in the villagers' livelihood changes, land politics, and then agrarian transformation (Park and White 2017, De Haan and Zoomers 2005). So this is a critical area for future study.

Notes

[1] These trees are planted by production teams rather than individual villagers.

[2] Among the 106 interviewed villagers, 84 households already had family members that migrated. Of these households, 58 plant eucalyptus trees.

[3] Of the 106 villagers I interviewed, 76 villagers told me that they have planted eucalyptus trees. Of these planters, 59 households have at least one family member doing migrant work in an urban area.

[4] As mentioned in Chapter 5, there are also a few investors, especially large-scale ITP owners, who prefer local wage workers. According to an interview with an employee of a foreign company, large-scale investors are more concerned with continuity because their ITPs are larger (Field notes, 19 March 2016).

[5] But they might be dispossessed or become cheap wage workers during some other process in another sector, and in urban areas.

Appendices

Appendix 1
Questions for academic actors

1. The general situation of the development of eucalyptus trees in Guangxi:
- What kind of trees are planted here? And how many areas are allocated to each type?
- When did the eucalyptus trees become popular in Guangxi? And why?
- What are the main products of eucalyptus trees?
2. Their relevant research:
- What is your main research direction?
- What do you think about the eucalyptus tree crop in terms of its economic and ecological values?

Appendix 2
Questions for state actors

1. General situation of the forests in Guangxi:
- What are the area and the types (for economic use or for ecology use) of the forestland now? What kind of trees are planted here? And how many areas are allocated to each type?
- The economic effect (are there any changes in the economic growth in Guangxi, especially in rural areas); ecology effect, and social effect (employment)?
- The problem and challenges you have met.
- Plans for the future (how many hectares for economic forests).

2. The land-use changes for ITPs in Guangxi:
- The land property rights (collective or private, what is the percentage of the state-owned forest farms? What are the percentages of domestic and foreign forest farms, respectively?).
- The history of the land (before the plantations, what did they do with these lands? The time of change, the process aim).

3. The situation of the forest investment in Guangxi:
- Why does Guangxi prioritize the forestry economy for development?
- What kind of land can be used for forestland investment (collective or private)?
- Is there any preferential policy for state-owned companies for forestland investment? Any challenges?
- Why is it a goal to attract foreign investment in Guangxi? How is this done? And are there any impediments?

4. Relevant forest investment policies:
- The influence of the preferential policies (development of western regions, coastal area, minority and China-Asian Free Trade Area) on the forestry economy.
- The influence of the reforestation policy on the forest.

Appendix 3
Questions for corporate actors (state-owned farms, APP and Store Enso)

1. The general situation of your company:
- What are the company's products?
- Where are your company's sites (production sites, processing sites and circulation sites)?
- Where do your products go: domestic or international consumption?
- Why did your company choose to invest in Guangxi? When?
2. The investment and output value:
- How much did the company invest in Guangxi? And how much of this amount goes into the ITP sector in Guangxi?
- How much is the output value of your company here in Guangxi? And how much of it comes from the ITP sector in Guangxi?
3. The company's ITPs:
- How many hectares of eucalyptus trees are planted by the company?
- When did your company start to plant eucalyptus trees and why?
- How did your company get the land for eucalyptus tree plantations (from government, state farms or villagers)?
- Are the eucalyptus trees you planted all for your own products? If not, where/which company do you sell trees to?
- Do your companies also buy eucalyptus trees from other planters/companies? If so, who/which companies do you buy trees from?
- What are the problems and challenges you have encountered?

Appendix 4
Questions for villagers

1. The land condition and land-use change in Guangxi:

- How much (the hectares and the plots)?
- What kind of land (forest/farm land, irrigated land or rock and hilly land, leased from collective/individual or contracted through HRS)?
- For what land-use (paddy, vegetables, sugarcane, eucalyptus trees or other economic crops)?
- The changes and reasons?
- The dynamic between land-use of eucalyptus and other economic crops? What kind of crop was planted before eucalyptus trees?

2. Land property rights:

- How much land leased by whom to whom (different types - from private land tenure to community-owned land leasing, with /without land brokers and what is the role of the government in it)?

3. Labour and livelihood changes:

- Internal migration and impacts for the livelihood of indigent people.
- What is the main source of income of the rural households in Guangxi?
- Whether there is any (nuanced) social differentiation within villages and the main reason behind it?
- The labour distribution in eucalyptus tree planting? (how many labourers, how much time, employed wage labour or household labour)?

4. Eucalyptus tree expansion:

- The new technology used for planting eucalyptus (the seed, the fertilize and the herbicide used).
- The production mode of eucalyptus (independent planter/ contract farming/wage labour, percentages for each).

- The commodity chain of eucalyptus (for domestic consumption or export, locally processed or transported to other places to process, involved with domestic private/state/transnational capital).
- Is there any resistance against the eucalyptus tree expansion, for what reason (land, environment or employment)?

Appendix 5
questionnaire (English version)

Time			
Location	city	county	township
Code			

A personal status:

A1 your gender is: ( ) 1) male 2) female

A2 your age is _____

A3 your education background is : ( )

0) none 1) primary school 2) middle school 3) university/college and above

B Household condition

B1 Your annual household income is _____Yuan, of which:

	Yuan
B2 from rice cultivation	
B3 from sugarcane cultivation	
B4 from eucalyptus cultivation	
B5 from other economic crops _____	
B6 from animal husbandry	
B7 wage in town	
B8 wage in the urban area	
B9 from trade	
B10 from eucalyptus upstream and downstream sector	
B11 others_____	

B12 The number of your household members, and each one's status:

The relation with respondent	Age	Sex 1m 2f	Marriage situation 1 single 2 married 3 widowed	Education 0 none 1 primary 2 middle school 3 university/college and above	Other off-farm work in the village 1 selling agricultural inputs 2 transport 3 wood processing 4 trade 5 doctor/teacher

Internal migration					Villager cadre? 0 No 1 Yes
Whether 0 No 1 Yes 2 used to, but not now	If so, since when	Where 1 town 2 city in Guangxi 3 other province	What job? 1 construction 2 factory 3 waged job in commercial and service sector 4 teacher 5 trade (boss) 6 other_____	How long a year	

C Land condition: your household currently owns _____ (Mu) land with _____plots.

	Plots	Hectare (Mu)
C1 agricultural land owned (paddy land)		
C2 agricultural land owned (dry land)		
C3 forestland owned		

	Plots	**Hectare (Mu)**	**Year**	**From/to** 1 village collective 2 state farms 3 foreign companies 4 domestic private company 5 individual villagers 6 domestic investors/ middlemen	**For** 1 rice 2 eucalyptus 3 sugarcane 4 fruit trees 5 cassava 6 maize 7 vegetables 8 other_____
C4 agricultural land leased in					
C5 forestland leased in					
C6 agricultural land rented out					
C7 forestland rented out					

D The current land-use for your agricultural land and forestland:

	Rice	Eucalyptus	Sugarcane	Fruit trees	Cassava	Maize	Vegetables	Other economic crops
Agricultural land (Mu)								
Forestland (Mu)								

Usage 1 subsist-ence 2 commer-cialize								

E How much time and do you spend on the crops listed in the table in your household, and how many labourers are involved:

	Ri ce	Euca-lyptus (first year of 1 rota-tion)	Eucalyp-tus (after the growth stage)	Sug-ar-cane	Fruit trees	Cas-sava	Maize	Veg-eta-bles	Other eco-nomic crops
Time (days)									
Number of labour-ers									

F Status of eucalyptus cultivation

F1 Do you plant eucalyptus trees? ( ) 1) Yes 2) No

F2 If not, why? ( )

1) Environment pollution 2) no land 3) no money 4) the require-ment of the government 5) other_____

F3 Your household plants eucalyptus trees for ( )

1) the high economic profits 2) the requirement of government 3) the impacts of neighbour 4) the impacts of foreign investors 5) the impacts of state farms 6) the labour shortage
7) Other_____

F4 Your household planted the eucalyptus trees starting in the year _____

F5 You plant eucalyptus trees:

	Hectare (Mu)	Annual income (Yuan)

a) Through contact with companies		
b) As wage worker		
c) As shareholder		
d) As independent planter		

F6 The land you plant eucalyptus trees is from:

	Hectare (Mu)	Originally usage 1 paddy 2 eucalyptus 3 sugarcane 4 fruit trees 5 cassava 6 maize 7 vegetables 8 unused/waste land
a) your own agricultural land		
b) your own forestland		
c) leasing from collective		
d) leasing from other villagers		
e) leasing from state farm		
f) leasing from middlemen		
g) other_____		

F7 The cost on the eucalyptus trees (excluding labour):

	Cost per unit (Yuan)	Unit (a tree /Mu/Year/ rotation)	Total (Yuan)
a) seeds			
b) fertilizers			
c) herbicides			
d)others_____			

F8 Do you employ wage labourers to plant eucalyptus trees? ( )

1) Yes 2) No

F9 If yes, these labourers are:

	Time (days)	Number of labourers	Labourers from 1 local village 2 other regions of China 3 other countries	Cost (Yuan)
a) planting				
b)weeding and fertilizing				
c) logging				

F10 You sell the eucalyptus trees to:

	Logged 0 no 1 yes	**Together with the land** 0 no 1 yes	**m^3**	**Price**
a) APP/Stora Enso				
b) state farms				
c) domestic private companies				
d)individual investors/middlemen				
e) others_____				

F11 Are you hired in the eucalyptus sector（ ） 1) Yes 2) No

F12 If yes, the employment situation is :

Link	Time (day/year)	Situation 1 stable	Machine 1 owned 2 rented	Objects 1 foreign company	Annual income

		2 temporary	3 no,employed by others	2 state farm 3 domestic private company 4 individual investor	
a) planting					
b) weeding and fertilizing					
c) logging					

F13 Do you take part in other links of the eucalyptus sector ( ) (multiple choices)

1) seeding cultivation 2) transportation

3) wood processing 4) middleman

G What do you think about the impact of eucalyptus trees planted in your region (indicate your opinion)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
G1 Regional income has increased					
G2 More internal migration					
G3 The illegal land occupation has increased					

G4 More water pollution					
G5 More soil degradation					

Thank you very much for your time!

Appendix 6
questionnaire (Chinese version)

关于农村转型的问卷研究

女士/先生：您好！

我是荷兰伊拉斯姆斯大学社会科学学院“农村人口环境”课题组派出的访问员，希望对您做一次社会调查，旨在了解您家庭的生计状况。本项调查是一次匿名的社会调查，调查结果主要用于学术研究，不会给您带来任何政治、经济上的不良影响。我们将按照《中华人民共和国统计法》对您的回答保密。您的回答对本项研究非常重要，衷心感谢您的配合！

调研时间			
调研地点	市	县	乡
问卷编码			

A 个人和家庭基本情况

A1 您的性别 （ ） 1）男 2）女

A2 您的年龄_____

A3 您的教育水平（）

0）无 1）小学 2）初中

3）高中/中专 4）大学及以上

B 家庭状况

B1 您家的年收入有 _____元，包括：

	元
B2 种粮食	
B3 种甘蔗	
B4 种桉树	
B5 其他经济作物种植_____	
B6 动物养殖	
B7 在镇上打工	
B8 在城里打工	
B9 做生意	
B10 桉树上游和下游行业	
B11 其他_____	

B11 您家里一共__人， 具体的情况是：

与您的关系	年龄	性别 1 男 2 女	婚姻状况 1 未婚 2 已婚 3 寡居	教育水平 0 无 1 小学 2 初中 3 高中/中专 4 大学及以上	在村里的其他非农工作 1 卖农资 2 运输 3 木材加工 4 贸易 5 医生/老师

打工经历					是否村干部？ 0 否 1 是
是否外出进城工作？ 0 否 1 是 2 以前有过	如有，从何时起？	在哪里 1 镇上 2 广西 3 其他省 4 其他国家	何种工作? 1 建筑 2 工厂 3 在工商和服务行业打工 4 老师 5 做生意 6 其他_____	一年在外时间	

C 土地情况

C1: 目前您家有土地_____ 块，合计_____亩

	地块数	**面积（亩）**
C2 水田		
C3 旱地		
C4 林地		

	块数	亩数	年份	来自/租给： 1 村集体；2 国有林场；3 外企；4 国内私企；5 个人(同村)；6 个人（外来）/老板	种植 1 粮食；2 桉树；3甘蔗；4 果树；5 木薯；6玉米；7 蔬菜；8 其他_____
C5 租入耕地					
C6 租入林地					
C7 租出耕地					
C8 租出林地					

D 目前土地用途

	粮食	桉树	甘蔗	果树	木薯	玉米	蔬菜	其他经济作物____
耕地(亩)								
林地(亩)								
用途 1 自己吃 2 买卖								

E 您家一年内多少天多少人进行耕种以下作物：

	粮食	桉树(第一年)	桉树(一年后)	甘蔗	果树	木薯	玉米	蔬菜	其他经济作物____

时间									
人数									

F：**桉树种植情况**

F1： 您家里有种桉树吗？（ ）1)有 2） 没有

F2：您不种桉树的原因是？（ ）

1)破坏环境 2）没有林地 3)没有资金 4)政府要求5)其他_____

F3：您种植桉树的原因是？（ ）

1)经济效益好 2）政府要求 3)周围邻居影响

4)外企影响 5）国有林场影响 6）劳动力短缺

7）其他_____

F4：您家桉树从_____年开始种植。

F5：您家桉树种植模式是：

	面积	年收入
a 与企业签约种植		
b 作为工人为企业种		
c 合作种植		
d 自己独立种		

F6 您家种植桉树的土地:（ ）

	面积（亩）	原来用途 1粮食；2桉树；3甘蔗；4果树；5木薯；6玉米；7蔬菜；8荒地；9）其他_____
a) 自己的农地		

b) 自己的林地		
c) 租集体的土地		
d) 租其他个人的土地		
e) 租国有林场的土地		
f) 租中间人的土地		
g) 其他_____		

F7 桉树成本 （劳动力除外）：

	单位成本 (元)	单位 (株/亩/年/ 轮伐期)	总计 (元)
a)种苗			
b) 化肥			
c) 除草剂			
d) 其他_____			

F8 您家有雇工种植桉树吗？ （ ）1)有 2) 没有

F9 如果有，劳动力雇佣情况是：

	时间 (天)	人数	来自 1 本村；2 中国其他地区；3 其他国家	成本 (元)
a) 耕种				
b) 除草和施肥				
c) 砍伐				

F10 您家桉树卖给：

	是否包含砍伐 0 否；1 是	是否包含土地租赁 0 否；1 是	m^3	价格
a) 外企				
b) 国有林场				
c) 国内私企				
d) 个体老板 / 中间人				
e) 其他_____				

F11 您是否被雇佣于桉树种植（ ）1) 有　2）没有

F12 如果有，劳动力雇佣情况是：

环节	时间（天 / 年）	性质 1 固定；2 临时	有无勾机 1 自己有；2 租赁；3 无，帮人打工	对象 1 外企；2 国有林场；3 国内私企；4 个体老板	年收入
a) 播种					
b) 除草，施肥					
c)砍伐					

F13 参与桉树其他环节（ ）（可多选）

1）种苗培养　　2）运输

3）木材加工　　4）中间人

G：您下列关于桉树种植的影响：（在下列符合的条目中打钩）

	符合	基本符合	差不多	基本不符合	完全不符合
G1 收入增加了					
G2 更愿意出外打工了					
G3 占地多了					
G4 土地更加干旱了					
G5 土地肥力下降					

以上为全部调查内容，感谢您的配合！

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CURRICULUM VITAE

Yunan Xu is a PhD candidate of Development Studies at the International Institute of Social Studies (ISS) in The Hague. She has published several journal articles, reports and conference papers. Her research interests include: land politics and policies, rural livelihood, rural politics, agrarian transformation, crop booms, flex crops and food politics, with the geographic areas both in China and beyond (Southeast Asia and Latin America). She has published in top international academic journals, including *Journal of Peasant Studies, Geoforum, Journal of Cleaner Production, Third World Quarterly* and *Third World Thematics*.

She has an interdisciplinary education background, in the field of nature resource and environmental studies. She began her academic career in the water resource, geography and environmental science field during her Bachelor's degree, which resulted in two joint articles. At the postgraduate level, she extended her scope of learning from natural science to social science, with particular a particular focus on environmental governance and natural recourse management, in order to better understand complex social realities and seek better solutions for sustainability issues. During her Master's degree, her research focus on food safety and food policy in China, which is part of an international project on the environmental flow between the rural and urban areas collaborated with academics from Wageningen University, and was resulted in a joint article. Then, during her PhD study, she shifted the research scope from consumption to production process, and from urban to rural areas.

Her PhD research is on the political economy and political ecology of the rise of the industrial tree planation sector in China, with a focus on the dynamics of land, labour and livelihoods. In this research, she has employed the mix method and engaged with the global context and debates on crop booms, land politics, social differentiation, political reactions

from below, accumulation and dispossession, and human-nature interactions etc. Her study is global in scope with a focus on China, with implications both for China and beyond.

She is expertise in both qualitative and quantitative research methods. She is able to conduct mathematical models and statistical methods proficiently, with a series of relevant programming tools (e.g. R, SPSS, GAMS, LINGO). Moreover, she has gained expertise in critical political economy and political ecology perspectives during her PhD training.

Additionally, she has helped organized Research in Progress Seminars at ISS (2014-2015). She has been invited to give lectures at Wageningen in the Netherlands and Institute for Poverty, Land and Agrarian Studies (PlAAS) in University of The Western Cape, South Africa. She has also been actively involved in facilitating and participating in various seminars and conferences in international settings (e.g. the "BRICS Initiatives for Critical Agrarian Studies" or BICAS, and the Emancipatory Rural Politics Initiatives or ERPI).

Publication list

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