GROUNDING GLOBAL FOREST ECONOMIES: RESOURCE GOVERNANCE AND COMMODITY POWER IN RURAL LAOS

by

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Abstract

This dissertation represents an investigation into global and East Asian forest resource commodity networks, state policies, institutions of resource governance, and political ecological transformations in property and livelihood. It presents an analysis of the political-economic dynamics that are restructuring the forest and paper sector on a global and Asian regional basis, and explains how commodity production becomes connected to the production of state power, and new projects of rule in a rural community in Lao PDR (Laos). Three key literatures are drawn upon: economic geography and global production networks; political ecology; and governmentality studies. Methodologically, the research uses policy studies, interviews with key governance actors, discursive analysis, and extended ethnographic fieldwork in a rural community setting. The dissertation employs the research data to show how global commodity networks are formed through forces of industrial restructuring, inter-firm competition, and firm-state strategic couplings. Forest commodity networks in turn become territorially embedded through state institutions and land tenure policies, and incorporated into the production of nature and place-based processes of socio-environmental change. The dissertation argues that neoliberal restructuring in the global forestry and paper sector involving firms in Japan and China is situating Laos as a regional wood plantation supply platform. The creation and capture of resource rents is argued as a core driver of this process. This is shown as producing an uneven resource landscape in central Laos, as plantation concessions interact with hydropower development to transform local ecologies and communities. In the study

community of Ban Sivilay, nature's commodification has introduced local processes of displacement, environmental degradation and impoverishment, as well as new corporate compensation programs that seek to integrate households into market-based agricultural production. This dissertation thus develops a critical economic geography and political ecology of the resource landscape, and an ethnographic analysis of the creation of governable spaces, and 'productive' or modern communities and market subjects in Lao PDR.

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Well, it's been a long journey. It is something of a distance from the rural routes of Ariss Ontario to the uplands of Laos. I would like to thank the following people for their encouragement and guidance along the way.

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Family and friends are far too numerous to mention here, although you all know who you are.

And warmest appreciations are for Meriam Espela, for seeing me to the finish line.

While there were a number of influences that led me to conduct research in the Mekong Region, one of these was definitely provided by my father, Dave Barney. My exposure to world affairs started with reading the *Sunday Times* and the *Guardian* on lunchbreaks at Rectify Electric Ltd. motor repair shop in Elora Ontario. And sometimes, parents can influence their children in unexpected ways, simply through their actions.

WELCOME FOR BOAT PEOPLE. Dave Barney welcomed 13 Vietnamese refugees to Guelph Friday. The four related families each left Vietnam at different times eventually arriving in a refugee camp in Malaysia. Last June five churches under the Classis Huron applied to immigration authorities for permission to sponsor four families. The refugees arrived in Montreal early last week and were flown to Toronto where Mr. Barney met them. On Friday they spent the night with four Guelph families before being transported to their two townhouses in Kitchener where they will try to rebuild their lives. (Mercury Photo)

This dissertation is dedicated in loving memory to my mother,

Lily (Lysje) Barney
1935-2003

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Glossary of Acronyms

ADB	Asian Development Bank
ADT	Air Dried Tonne
AFD	Agriculture and Forestry Development Company
APP	Asia Pulp and Paper
APRIL	Asia-Pacific Resources International Limited
BHKP	Bleached Hardwood Kraft Pulp
BPKP	Bolisat Patthana Khet Phu Doi
BSKP	Bleached Softwood Kraft Pulp
DAFI	Department of Agriculture and Forestry Industries
FAO	Food and Agriculture Organization
FGHY	Fast Growth High Yield
FOMACOP	Forest Management and Conservation Project
FPIC	Free Prior and Informed Consent
FSC	Forest Stewardship Council
GCC	Global Commodity Chain
GDP	Gross Domestic Product
GPN	Global Production Network
GVC	Global Value Chain
GMS	Greater Mekong Subregion
IBRD	International Bank for Reconstruction and Development
IDRC	International Development Research Centre
IFC	International Finance Corporation
ITPP	Industrial Tree Plantation Project
IUCN	International Union for the Conservation of Nature
LFAP	Land and Forest Allocation Program
LUPLA	Land Use Planning and Land Allocation
MAF	Ministry of Agriculture and Forestry
MIGA	Multilateral Investment Guarantree Agency
MW	Mega-Watt
NAFES	National Agriculture and Forestry Extension Service
NAFRI	National Agriculture and Forestry Research Institute
NG8	Nam Ngum 8
NLMA	National Land Management Agency
NPA	Non-Profit Association
NT2	Nam Theun 2
NTFP	Non-Timber Forest Product
NTPC	Nam Theun Power Company
NUoL	National University of Laos
PAFO	Provincial Agriculture and Forestry Office

Glossary of Acronyms (continued)

PDR	People's Democratic Republic
PLUP	Participatory Land Use Planning
PWC	PriceWaterhouseCoopers
ROCE	Return on Capital Employed
RWE	Round Wood Equivalent
SUFORD	Sustainable Forestry for Rural Development Project
THPC	Theun-Hinboun Power Company
THXP	Theun-Hinboun Expansion Project
TLUC	Temporary Land Use Certificate

Chapter 1: Introduction

1.0 Introduction

'Laos is a landlocked and lightly populated country.'

Innumerable development reports over the past twenty years have started with this generic and rather banal observation.[1] Overcoming Laos' land-locked status, and integrating the space and citizens of the country into the regional and global economy, has represented the justification for numerous infrastructure and economic development support programs over the past two decades, particularly through the ADB's Greater Mekong Subregion (GMS) initiative (Glassman, 2010). Through the construction of GMS highways, airports, and port facilities, and through associated liberalized trade and investment policies, it is envisaged that Laos might overcome its geographical constraints and begin to attract regional and global capital investments into its undeveloped natural resource sector, particularly into the three key areas of hydropower, mining and agro-industrial projects.

While Laos' physical geographical endowments might be overcome with infrastructure, the trope of Laos as 'lightly populated' in turn frames a persistent idea that large resource projects can be implemented with minimal disruption to rural society. This basic policy framework, connecting infrastructure investments supporting regional integration, with

[1] To provide just one example: "First, the country is a small, mountainous, landlocked, sparsely populated and subsistence-oriented economy in the least-developed sub-region of East Asia. These conditions increase transport costs and put Lao PDR at a disadvantage to adopt the kind of outward oriented development strategy that has served much of East Asia so well" (World Bank, 2006).

large-scale extractive resource projects, has represented the dominant set of prescriptions guiding Lao development over the past two decades, including in the agro-industrial sector.

The paradox of Lao development is not that there exists an ideal set of "win-win" outcomes that are somehow being ignored or undermined. While discursive framings of Laos as an under-populated, resource-rich frontier country have a specific set of material effects that favours resource developers, others also recognize the significant trade-offs involved in implementing large resource projects in Laos. It is clear that economic development policies will produce environmental externalities, and impose a set of costs on rural society. While there are better and worse ways of implementing extractive development, this dissertation shows that even so-called 'best practice' resource projects still introduce a set of complex and irreversible set of socio-ecological changes, through the commodification of nature and the enclosure of common property systems. The firms making these investment decisions in Laos are typically doing so based upon some kind of extra-normal profit or capture of rents, generated from the externalization of social and environmental costs, and the enclosure of community managed common-pool resources. The reality of the legal-bureaucratic system and the regime of resource governance in Laos also means that the effectiveness of local mitigation and compensation measures will be, at best, uneven. Decisions concerning the liberalization of the Lao trade and investment regime, and the use of foreign investment in the resource sector, are arguably less about crafting win-win scenarios (although these discourses can be useful for various

project proponents, in terms of a public relations strategy). Rather, I would suggest that most informed observers acknowledge (perhaps more frankly in private) that resource-led investment through regional integration is an explicitly political decision concerning Laos' options for economic development, that are based on a difficult set of policy choices and 'least-worst' options.

My intervention into these debates involves an examination of the geographical and political-ecological implications of global investment into the Lao resources sector, with specific attention upon the plantations and agri-business sector. This dissertation focuses on the ways in which capitalist dynamics in the global forestry and paper industry shapes firm behaviour, and shows how global commodity networks interact with national regulatory regimes to produce local political ecological changes. I examine the multi-scaled socio-spatial transformations that result from resource concession projects in Laos, as a way to better understand what the trade-offs between national development and local enclosure, ecological degradation, and impoverishment actually entail. Lastly, in this dissertation I explore how state developmental and commodity power in Laos operates not only through coercion and disciplinary power, but also through efforts at re-orienting local actors towards the ideology and incentive structures of the market, and through the making of more 'governable' spaces and rural subjects.

1.1 Land Concessions in Laos: The Making of a Commodities Boom

When I arrived in Vientiane for fieldwork in mid 2004, the Lao land concessions boom was in its early stages. At the time, one foreign researcher based in Vientiane found my research project on the political ecology of resource tenure and land conflicts in the plantation industry to be quite uninteresting. For him, the issue of eucalyptus plantations had already been documented and addressed, in neighbouring Thailand, and he was doubtful that there would be much new to study on this issue in Laos. Indeed, up to 2004, Laos had only been host to a rather unsuccessful ADB smallholder tree plantation promotion project, and there was a small group of plantation investors, just starting to develop some hundreds of hectares of land in central and southern Laos. In the north of the country a number of villages had recently planted the first smallholder commercial rubber plots in the country, and this was only beginning to attract some research attention from donor agencies and organizations such as the Lao National Agriculture and Forestry Research Institute (NAFRI). My dissertation research proposal hinged on the idea that, due to regional constraints that multi-national plantation and pulp companies were facing with access to land, the situation with investment into agri-business concessions Laos would soon be experiencing a rapid change.

By the end of my primary fieldwork period in late 2006, the Lao land concessions boom was gathering serious momentum, and my publications were amongst the first to document the implications of large pulpwood plantation investment projects for specific rural communities (but see also Shoemaker, *et al*. 2001; Lang 2003; Alton, *et al.* 2005).

My research interest in the Lao fast-growing plantation sector has (perhaps unfortunately), been justified— many times over. The latest figures now indicate some 400,000 hectares of rubber in the country, with five large pulpwood concession projects in the process of developing some 300,000 hectares of forest-land into fast growing eucalypt and acacia plantations. UNDP (2010) has recently suggested an estimate of 3.5 million hectares placed under agri-business concession agreements and contracts by various levels of the Lao state (out of a total national territory of some 23 million hectares). Today, Laos has come to represent a priority case country in debates around the 'global land grab', and there are dozens of examples of poorly regulated land concession deals, producing significantly deleterious outcomes for local communities and ecologies (see e.g. The Guardian, 2008; Dwyer, 2011; Kenney-Lazar, 2011).

The issue of how, from where, and through what mechanisms this surge of economic interest in the Lao forest-land sector has come about, and how, despite a documented history of resource tenure conflicts and land grabbing associated with the plantation industry in the Southeast Asian region, these problems have repeated themselves in Laos, animates a number of the basic questions of this dissertation. My approach examines the question of land investments in Laos through a specific global commodity production network (involving the fast-growing plantations and pulp and paper industry). I trace through the set of political-economic imperatives driving this process, and I examine the implications of this system of commodity production for local development trajectories in rural Laos.

In these pages I argue that the articulation between global pulpwood commodity networks and national to local institutions and social formations are specific to the unique contemporary relationship between the world economy and the historical-geographical and political context of Laos. What is happening in present day Laos with concessions, land grabbing and agrarian transition is not a simple derivative of previous agrarian transitions in Europe, North America or indeed elsewhere in Asia. Each rural-agrarian transition is unique to its time and place, and the outcomes are by no means predetermined.

1.2 Resource Commodities in Action

Fast growing eucalyptus and acacia trees, and the organization of large pulp and paper manufacturing facilities, represent a fascinating example of an integrated socio-natural industrial technology. The industry is linked into the global financial system, it involves significant global material-ecological flows, and the industry also holds significant power to dramatically transform communities and ecologies on a landscape scale, through projects involving hundreds of thousands of hectares.

In considering these issues of global investment and rural development in the context of the forest-land concessions sector in Laos, I work through a commodity-based approach, using the tools of economic geography, political ecology, and post-structural governmentality. My objective is not to promote a kind of commodity-reductionism in explaining Lao socio-economic transitions. Instead, through the optic of pulp commodity

networks and the plantations industry, I aim to develop a set of relational perspectives on how pulpwood plantations become situated and enrolled within broader processes of commodification, globalization, resource development, enclosure, and agrarian transition, and I explain how these forces work themselves out in particular sites in the context of rural Laos.

To introduce how we can begin to understand the introduction of the commodity form into semi-capitalist, subsistence-oriented agrarian societies, how we can deconstruct the commodity form, and trace through its pathways and networks, the following image from Pye (2005: 8), provides a fascinating example of how the commodification of nature can take on fetishistic qualities.

Plate 1: An effigy figure of "Mr. Euca", from a village protest against the 1991-1992 *Khor Jor Kor* military-led reforestation program in northeast Thailand (Source: Pye, 2005:8).

In Taussig's examination of plantation commodity fetishism in South America (1980: 25, 121), he argues that modern capitalism produces a specific mentality and a form of subjectivity, "in which people tend to be seen as commodities and commodities tend to be seen as animated entities that can dominate persons… the sugarcane is fetishized as 'the terrible Green Monster, which is the Great Cane, the God of the landlords,' the system in which production has become the aim of man is decried and contrasted with the ideals of the use-value economy in which man is the aim of production."

Similarly, in northeast Thailand in the 1990s, in a time of coercive state-military backed plantation programs, the eucalyptus tree became fetishized by villagers as the 'selfish tree.' In this case, the Australian eucalyptus species became represented, by some communities, through a grotesque phallic effigy figure ("Mr. Euca"), an embodied representation of the way in which this commodity in the form of a tree was eating up communal territory and degrading environments, without concern for the local inhabitants. Of course, this was not the only imaginary of eucalyptus in Thailand at the time. Other local farmers were benefitting from planting eucalyptus as a commercial cash crop. Nevertheless the effigy of 'Mr. Euca' does encapsulate a very real social movement that developed in Thailand around protesting commercial tree plantations, and specifically, the commodification of nature that this represented.

The commodity fetish of the eucalyptus tree also operates at the other end of the pulp and paper commodity network. This applies to companies and consumers in industrial society,

who come to understand that the woodchips and paper products they purchase and consume are simple objects-unto-themselves, as opposed to the culmination of an exploitative chain of socio-economic, political, and ecological relationships.

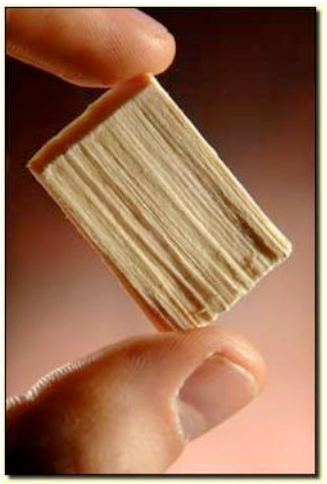

Plate 2: '*The perfect chip is flat and thin.'*
Source: "Pursuing the Perfect Chip." *Pulp and Paper International*. October, 2005.

This dissertation deconstructs the fetishism of eucalyptus woodchips, and examines how mundane resource commodities such as pulpwood trees can come to materially dominate a complex social landscape, displacing farmers and communities from long-held territories, and radically transforming local ecological processes. I focus on tracing through the networks of economic relations in which the pulp commodity is embedded, from global markets and inter-firm competitive strategies, down to the local politics of land use planning for agri-business development. I peel away the layers of scaled interactions, and follow the pathways of the commodity network, from large pulp mills, through state planning agencies, to specific villages, and households. My ambitions are to

develop an ethnography of global connection (Hart, 2004; Tsing 2005), through which we might understand the processes and implications of the territorial spread and intensification of commodity production systems into 'frontier' spaces, and into the living lanscapes of upland Laos.

While effigies of 'Mr. Euca', or perhaps 'Mr. *Nyang Phala*' (para-rubber) have not, to my knowledge, made appearances in rural Laos (a Thailand-type of grassroots popular mobilization would be unlikely in the current authoritarian political context of Laos), the village case study I present nevertheless highlights a range of social and cultural responses to, and engagements with, the transformative effects of resource development. As will be explained in this dissertation, local responses to resource led development have included the performance of a special set of Buddhist-Animist ceremonies, to re-assure village territorial *phi* spirits, after the integrity of the community's spirit forest was compromised (Plate 3). Such 'protective' counter-measures to resource enclosures have not however been the only responses by villagers. This dissertation also shows how local communities engage with state agencies, resource firms, new commodities and new opportunities for market production, and how new political ecologies are formed out of these interactions, in numerous and often unexpected ways.

Plate 3: Offering to village *phi* spirits for the disturbance of the community sacred/protection forest. Ban Sivilay, August 2008 (Author Photo).

Commodity development transforms locally-managed landscapes, diverting these onto new socio-ecological pathways. On the ground, in rural Laos, this creates a set of deeply hybrid and relational political-ecological and socio-economic transformations. The making of 'governable' spaces or governable subjects in rural Laos, through modernization, commodification and development, cannot be assumed, or read off from project reports. The ethnographic research in this dissertation traces through both the reach, and the limits, of the state and global commodity power in rural Laos, and shows how local farmers and communities are being transformed, yet always retain the capacity to respond in unforeseen or unplanned ways.

1.3 Key Innovations and Arguments of the Dissertation

This dissertation ties together these arguments and narratives, through an innovative application of geographical concepts and theoretical approaches. I base the discussion that follows upon three distinct literatures: geographies of commodities and global production

networks, political ecology, and governmentality studies. Each of these concepts provide a set of tools for understanding the mechanisms of expansion of the forestry and paper industry into the Mekong region, the production of new resource landscapes, changing patterns of property rights and resource access, and the making of 'modern' rural communities in Laos.

A core innovation of this dissertation lies in the combining of global production networks with political ecology. This involves incorporating into my analysis forestry commodity networks, issues of scale (from local, to the state and the global), and place-based territorial and ecological processes. Political ecology can inform the concerns of economic geography through promoting a much more systematic understanding of how place-based environmental processes and politics can influence how resource commodities become territorialized and how this affects local environments, regional and local development trajectories, and identity politics. In turn, a stronger focus on the economic organization of commodity networks and its relationship to capitalist dynamics can help political ecologists to understand the drivers of the socio-natural transformations and land and livelihood experienced in grounded places, and how these connect through economic processes across sites, regions or countries. This dissertation thus speaks to emerging work around 'environmental economic geography' (Soyez and Shulz, 2008; Bridge, 2008).

In a second innovation, I pay close attention to how, through strategic partnerships or 'couplings', forestry companies and state regulatory agencies become involved in transforming local political-ecological relations of property, access and livelihood. That is, I examine how national, regional and local institutions of resource governance affect whether, and how, commodity networks become territorial and material 'facts on the ground.' Yet, I avoid isolating commodity systems into institutional or conceptual boxes in a way that analysis becomes disembedded from place-based realities. Through local fieldwork, I show how multiple resource commodity systems (in this case, plantations and hydropower) can interact and overlap in terms of their local outcomes in particular sites. Indeed one of the problems with resource management and development in Laos is the way in which bureaucratic and professional communities tend to understand the implications of resource development in terms of individual sectors or realms of expertise (forests, rivers, agri-business, non-timber forest products), whereas in reality these social-ecosystems become closely inter-connected at the landscape level. I thus forward a specifically relational understanding of political-ecological transformation in rural Laos, whereby large resource projects transform not an untouched wilderness, but a social-landscape that is the result of long histories of local management, property making, and livelihood production. The environmental externalities and outcomes of different resource sector projects in turn interact with each other, and with local property regimes and livelihood practices, to produce complex feedback loops between communities, resource

projects, state regulation, and local ecologies. Political ecology provides the tools for this analysis of the production of land, property and livelihood in rural Laos.

Embedding commodity networks within state governance regimes, and in actual places, provides an avenue for understanding how political power in rural Laos functions at the local level, through space, nature, and through individuals. This opens up the potential for a discussion of both the reach, and the limits, of disciplinary, and governmental power, in the re-making of rural, ecological communities. I discuss the making of modern development subjects in Laos, oriented towards the logic of the commodity form and towards market-based production.

1.4 Research Methodologies and Positionality

The primary fieldwork for this research was conducted from August 2004 to September 2006, when I was based in Vientiane as a project assistant, working with colleagues at the Faculty of Forestry, National University of Laos. This core period of research included extended village-based stays in the primary research site in Khammouane province, between December 2005 and August 2006, of typically 2-3 weeks per month. In addition I developed a number of other side field sites, in Savannakhet and Salavane provinces, although for various reasons I decided upon the Hinboun district field site location for extended ethnographic village research on the outcomes of large plantation investments. After August 2006, I made a series of follow-up trips to Laos, in February and August

2007, September 2008 and June 2010, whereby I supplemented my research data, at times through my involvement in other external forest policy research projects.

My affiliation with NUoL, facilitated via participation in an IDRC-funded community-based resource management training program, represented a very important institutional "home" while in Laos. Unlike in neighbouring countries, in Laos explicit research permissions from various levels of the Lao state are required to conduct any sort of sustained village-based fieldwork. Research permissions and an extended visa with the Ministry of Foreign Affairs were secured with the very helpful assistance of colleagues at NUoL. My institutional position with the Faculty of Forestry opened up the door for meetings with provincial and district level forestry officials. Faxes and letters were prepared and signed by the Dean of the Faculty of Forestry in Vientiane, and sent to local forestry offices in preparation for interview meetings, and this greatly facilitated gaining access to these levels of the state. Significant time was spent cultivating my relationships with members of the Faculty of Forestry, so that I could be trusted as a researcher associated with the Faculty on fieldtrips.

Arranging forest and development policy interviews with central level decision-makers in Vientiane was a trickier affair. Here, a much stronger hierarchy of status and authority limited my access (these are national level decision makers, after all), and I was not particularly encouraged by my Faculty colleagues to pursue these interviews. This was especially the case as my research entailed a somewhat sensitive research topic— large-

scale foreign investments into the resources sector, although at least I was not focused on the logging sector, which would have been much more problematic. Since I was not based with a large or influential donor project, and being a junior researcher in my 30s, my interpretation was that there were significant barriers to gaining access to the top stratum of Lao officialdom. The fact that Laos is a Communist, one-Party state also means that discussions with elite officials need to be handled extremely carefully; attracting more attention to one's self than is required as a Western researcher may not always be the best approach. In some cases, I was advised by foreign colleagues not to pursue interviews with certain persons in the Lao Government. My interpretation is that gaining access to such officials depends upon slowly cultivating, and working through, a system of personal networks and development contacts established over a number of years. In any case, such elite interviews were not essential to this project, although subsequent involvement in external research projects have opened some opportunities here.

Elite interviews with non-Lao foreigners were secured with key development personnel in Laos, including informants based with organizations such as the Asian Development Bank, the World Bank, and bilateral donor agencies. These people in turn often had direct access to government decision-makers in the Lao state bureaucracy, although of course one has to consider that such global development professionals largely present their side of the interaction. In a number of cases, interviews were secured with transnational, hybrid Lao actors (see Goldman, 2001) who have studied overseas or worked with Western organizations but who now work within the Government of Laos

(see Herod, 1999, for a discussion of issues related to interviews with foreign elites, domestic elites, and foreign non-elites).

Independent access to research villages was another arena of negotiation. Initial trips to provincial forestry offices in five provinces of southern Laos were conducted with the advice and accompaniment of Faculty of Forestry staff. While this represented a fairly significant investment of time and expense, this personalised system of contacts and meetings became invaluable for gaining access to research villages. Nevertheless, not all of the provincial administrators were well-disposed to the idea of myself and a research assistant spending independent time in a village setting. In Savannakhet and Salavane provinces, research interviews required accompaniment from a provincial forestry staff member (who also required compensation on a per diem basis), and there was no option of staying overnight in a village setting. While this system afforded some interesting research insights, including the chance to discuss the results of local interviews with such lower-level provincial officials, overall I felt that it it proved to be more of a barrier in terms of understanding how local people perceived state-backed development interventions. For example, there is typically little possibility of frank discussions of the swidden issue with local villagers when forestry officials are present in the interview setting.

One provincial forestry department however did facilitate independent access to a village field site, in Khammouane province. It is impossible to precisely identify the factors that

went into this. For example, this particular provincial forestry official was well acquainted with the Faculty of Forestry in Vientiane, which may have helped my cause. This may have also related to the 60 km distance between the research village and the provincial offices in Thakhek. Khammouane provincial forestry officials also arguably have had more extensive experience with foreign researchers (for example through World Bank funded forestry and hydropower projects in the province), and also more opportunity to generate income from existing, well-funded development projects (or from the thriving logging industry in Khammouane). In Khammouane and on other field trips, I made it a point to take provincial local forestry counterparts out for a dinner and a Beer Lao, and if they accepted these became opportunities for personal relationship building. Lastly, it may also have related to a somewhat more relaxed 'revolutionary culture' in Khammouane as compared with other provinces and districts in Laos, which may have been the site for more intense conflicts in the Indochina Wars, and where there have been more serious internal security issues subsequent to 1975. In any case, after showing all of the required stamped documents, and an initial joint visit to Ban Sivilay, good relations with the provincial forestry office in the provincial capital of Thakhek allowed for independent access to what became my primary research village. A system was developed whereby I or my research assistant would simply make a call by mobile phone to the forestry officer in Thakhek, and inform him of the times we would be spending in the village, and he would give a verbal approval. This helped to avoid a situation whereby I would have been understood by villagers as in a position of working *for* the government

(see e.g. Hardy, 2005:17). Instead, my affiliation with the National University— and specifically the Faculty of Forestry— lent me both increased legitimacy in the eyes of forestry officials, and an arms-length status from the state government from the perspective of villagers. Independent access to village field sites represented one of the rationales for selecting a single case study village in Khammouane province for in depth ethnographic fieldwork.

Ban Sivilay was chosen as a study village in consultation with Khammouane provincial forestry officials. I was looking for a village that was within the concession area of a large-scale plantation forestry project, that was relatively poor and reliant upon local access to resources, and that was situated at some distance from a major transportation route. Ban Sivilay fit the bill—although as I soon discovered this village was also within the downstream affected area of a major hydropower project, from the Theun-Hinboun Power Company (THPC). As I explain in more detail later in this dissertation, this issue of multiple resource projects affecting a single village has presented a set of interesting advantages and perhaps disadvantages in terms of understanding the political ecology of forestry commodity networks in Laos. On the one hand, this leaves the local analysis presented in this dissertation open to charges of exceptionality; that the village on which the fieldwork is based is not representative of the wider situation in Laos, or of villages that have been affected by only plantation projects. However the insights that can come through local specificity can also be considered as the strength of this analysis. In this case I found that interesting connections could be drawn between multiple commodity

systems, and indeed, most villages in Laos have more than one set of development processes occurring in community spaces.

I draw from Ferguson (1994: 258) in considering how case studies which highlight the extra-ordinary can also illuminate: "…allowing us to see in stark outline processes that are likely present in less extreme cases." Ethnographic research approaches are also able to contextualize, in specific places, sites, and communities, the various contradictions which emerge within overarching discourses of 'progress' and 'modernity' that tend to characterize large-scale development projects, and to situate rural development within a broader field of political power relations (Mills, 2005).

At the time of primary field research, my Lao language skills were at the conversational level, but not sufficient for conducting full interviews with informants. Throughout village-based research therefore, I worked with a series of four Lao research assistants. Three assistants spent relatively brief periods with me in the field at sites in Savannakhet and Salavane, with the fourth spending the most significant time in Ban Sivilay. Following Turner (2010), here I will briefly make this 'invisible' aspect of fieldwork more visible, by explaining something of the terms and conditions through which my primary field assistant came to influence the research process, in a very positive way.

One of the first aspects of working with this field assistant was his ease with interacting with Hinboun district villagers. This young man had recently graduated from the Faculty of Letters at the National University in Vientiane. Although he grew up in the northern

province of Huaphan, and his family remained farmers after they settled on the outskirts of a town on the Vientiane plain close to the Ngum River. Amongst the first ideologies that students often learn in forestry training is to abhor swidden agriculture. Not only was my research assistant not a forester, but he also grew up doing swidden agriculture with his family in Huaphan province. This basic fact made a tremendous difference to how my assistant understood the livelihood struggles of Ban Sivilay villagers. In addition, his practical knowledge of many of the same livelihood strategies that Sivilay villagers used, was a significant asset.

He was an excellent field assistant, cultivating strong personal relationships with Ban Sivilay villagers during our extended stays, and he was always ready to go for a hike into the Hinboun hills to investigate issues related to swidden or resource use or plantation development. The fact that we are both men of course produced some limitations with the village research process, and my data is biased to some extent towards the viewpoints and information derived from of older men in the village. Spending significant periods of time in the village over many months however led to a general ease and familiarity in conversation with adult men, women and teenagers in the village. Conversing with villagers through this field assistant certainly had some drawbacks, in terms of the ease of communication and some of the nuances of Lao to English translation. However working through an interpreter/research assistant also allowed time for slowed down, considered, conversational engagements with villagers. This also afforded me the time to more easily

and accurately record interviews with hand notes as opposed to more time-consuming, and more intrusive, audio technology.

Upon first arrival in the village, myself and this young man spent an afternoon digging a 7 foot deep by 3 foot across hole in the ground, to serve as the pit for the headman and his family, who were constructing a toilet as part of a demonstration project by the hydropower company- THPC. This put us in early good standing with the village headman! Participating in everyday village activities, including fishing or hunting or forest product collection trips, or helping a family with planting upland rice, was a crucial part of gaining rapport with Ban Sivilay villagers for both myself and my research assistant. Space precludes explaining all of the issues that were faced during terms of fieldwork in Ban Sivilay, but suffice to reiterate here that this research project could not have been conducted without the camaraderie, advice and assistance of all four of the research assistants.

A positive village-based research experience of course does not negate issues of positionality. This dissertation is a research project by a white male Western researcher, undertaking fieldwork in what could be called the 'traditional' method of single-village ethnographic research in a poor tropical country. Each researcher has their own positionality to address and to reflect upon, and this applies to any Western researcher as well as to any member of the Lao educated elite. The ethnographic representations of Ban Sivilay villagers presented in the pages that follow have been formulated through

extended village stays, and through close attention to territorially-based livelihood practices in village spaces, to the transformations in resources and territory induced through resource sector projects, and through local stories of livelihoods from inside and outside village spaces. Close attention to the ways that villager's generated a livelihood has also allowed for more detailed examination of the operation of power in village spaces and through local subjectivities (see also Moore, 2005: 28).

Village-based research in Ban Sivilay was structured around participant-observation, semi-structured interviews, and, closer to the end of my village stays, the use of household survey questionnaires. It was my conclusion that the use of surveys at the beginning of the village-based research would have been misguided, as at that time, I would not have even known the most appropriate set of questions to ask on village livelihoods and resource use through survey methodologies. Starting with participant observation (and emphasizing the 'participant' component as much as possible), and learning first hand what villagers actually 'did' every day, and then moving on to semi-structured interviews, and finally working with village surveys which provided more details on issues like livelihoods and ecological transformations, proved a useful approach.

As indicated, local level ethnographic analysis was supplemented by semi-structured interviews at local, provincial and national level government agencies, as well as with representatives of transnational companies, and international donor and civil society

organizations operating in Laos. In this way, I sought to link local sites in rural Laos, with national and transnational processes, through a multi-site and multi-scale based approach.

1.5 Organization of the Dissertation

This dissertation proceeds through six further chapters. To some extent, the structure of these chapters maps onto a 'scalar' analytic, moving from an analysis of global and regional pulp sector production networks, to the scale of Laos as a resource frontier, and down to regional development transformations and local studies of property rights and access in a village setting. The last empirical chapter before the conclusion remains at the scale of the village to understand the operation of forms of governmental power in the making of village spaces and subjects. Despite this chapter framing, moving from global commodities to local resources, the scalar analytic is also de-centered through my use of network ontologies to understand the operation of commodity systems.

In Chapter 2, I expand in further detail upon the concepts and literatures I draw upon to examine questions of commodity power, resource governance, and changing livelihoods in rural Laos. I explain my use of the literatures around global production networks, political ecology and governmentality studies. I argue that economic geography, political ecology and governmentality studies can be productively combined, to shed light upon the making of Southeast Asian resource economies, and to better understand the production of land, livelihood, markets, and community in globalizing Laos.

Chapter 3, the first empirical chapter focuses upon understanding the plantation, pulpwood and paper sectors as a global production network (GPN). This involves an extension of the GPN approach from its usual application in advanced manufacturing industries, to include resources or 'nature'-based industries. The GPN approach to networks, the state, and territoriality is also applied in a more critical manner, to understand how the organization and extension of resource sector GPNs can also act to *undermine* local economic development options, through the capture and extraction of resource rents.

Chapter 4 continues with a network-based approach, by building upon the concept of 'strategic coupling', between global firms and production networks on the one hand, and state institutions managing valued resource assets on the other. I focus upon the example of Japanese pulp sector investment in Lao PDR as a way to examine how state policies and regulatory institutions within Laos play a crucial role in shaping how a global commodity network become territorialized in actual places. Understandings of the nation-space of Laos as a contemporary 'resource frontier' is shown as a neoliberal boosterist trope, but also an empirical reality which captures an important element of how resource-led development is producing new geographies of enclosure, and patterns of accumulation by dispossession.

Chapter 5 moves to the local scale, with a detailed political ecological analysis of changing property rights, patterns of resource access, and local livelihoods in a village in

central Laos. Here, global forestry networks become materially connected to place-based processes, and I show how plantations and land concessions can interact with other forms of resource development in Laos, specifically hydropower projects. I show how villagers in this community have experienced a form of "double displacement", through the cumulative ecological outcomes and and enclosure effects from both plantations and hydropower industries. This chapter pays detailed attention to the application of regulatory mechanisms in Laos around forest-land reform, in a way that highlights the relationships between global networks, resource governance and local political ecologies.

Chapter 6 shifts to a set of Foucauldian perspectives around the functioning of political power and patterns of rule, and its connection with political economy, through a governmentality perspective. Drawing from scholars such as Hart (2004), I aim to develop a more precise ethnographic diagnosis of how disciplinary and governmental power actually operates in community spaces, and I examine the ways in which various practices, agents and techniques of power operate in producing governable spaces and subjects in a village location. This chapter moves beyond the notion that resource development and enclosure in authoritarian Laos is based only upon political coercion or repression. Instead, I seek to understand how governable spaces and subjects are formed, through the cultivation of particular understandings of, and orientations towards, market-based production in rural society. To show this, I focus on the interactions between resource firms and state power in producing a functional extractive resource landscape,

and I analyse the programmes and techniques used to move smallholder farmers into market-based production systems, within these enclosed spaces. I introduce a conception of the limits of neoliberal governmental power, through a close analysis of the extent to which local people and households are actually enrolled (or not enrolled) into particular governmental programs, and through ethnographic attention to the terms and lived experiences of mitigation and compensation programming in a village setting.

Chapter 7 provides a conclusion of the major findings and relevance of this dissertation, and summarizes the ways in which we can better understand the operation of production politics and resource governance in globalizing Laos.

1.6 Conclusion

The overall objective of this dissertation is to develop a critical economic geography and political ecology of the production of resource landscapes, and an ethnographic analysis of the creation of governable spaces and 'productive' or modern communities in Lao PDR. Whilst the empirical focus is upon a relatively small and perhaps insignificant (in the geopolitical sense) corner of Southeast Asia, I aim to build upon Hart's (2004: 91) call for understanding the "…persistently diverse but *interconnected* trajectories of socio-spatial change in different parts of the world" (original emphasis). My research also takes care to avoid understanding current transformations in Laos through an "impact" model of globalization. Instead, I use a series of geographical insights to understand the uneven and relational re-making of spaces, governance formations, communities, and ecologies

through global commodity networks. With this introduction, we can now enter the world of forestry commodity networks, resource governance, and political ecological transformations in rural Laos.

Chapter 2: Theoretical Orientations

2.0 Introduction

This chapter introduces and explains the main theoretical concepts that have guided the research process, and orients the reader to the primary field research questions. The sequence in which these ideas are presented should not be taken as an indication that I arrived in Laos for fieldwork with a fully formed theoretical framework in place. While the main concepts were under development in advance of fieldwork, further reading and reflection continued through the main research period in Laos from 2004-2006, as well as throughout the subsequent period of writing this dissertation and the associated published articles. A series of return trips to the region, as well as extensive applied research experience on issues related to forest-land sector governance in Southeast Asia, continued to inform and re-shape both my theoretical positioning and my empirical understanding.

Here I develop focused reviews of the scholarly literature in three core areas that have most informed and guided this dissertation. These are: a) geographical approaches to commodity studies and global production networks; b) political ecology, resource governance, and the production of resource landscapes; and c) governmentality and the spaces and subjectivities of development. My aim is to explain how I have applied, combined and/or modified these ideas in my own research, and used them as methodological tools for understanding my research questions related to resource development, livelihoods, and identities in rural Southeast Asia. I outline the conceptual

innovations that this research project develops. Lastly, I introduce the overall thesis statement, which will serve as the line of argument for the remainder of this dissertation.

2.1 Geographical Approaches to Commodity Studies and Global Production Networks

> "[I]t seems safe to conclude that the world today has billions and possibly trillions of different commodities, all denominated in universal price units and therefore connected through a single quantitative architecture that cuts across time and space…nothing remotely similar has ever existed in human history"
>
> (Nitzan and Bichler, 2009: 153)

Global commodity studies have represented a growing scholarly field of geographical and social science research over the past two decades. From forestry (Ribot, 1998; Prudham, 2003; Gellert, 2003), to seafood aquaculture (Flaherty, Vandergeest and Miller, 1999), coffee (Tan, 2000, West, 2010), minerals and oil (Watts, 2004a; Zalik, 2009), agro-food (Mintz, 1985; Barndt, 2002; Fold, 2001; Pritchard and Curtis, 2004), to apparel (Hale, 2000), researchers have explained the hidden socio-economic, ecological and geographical histories— the 'secret social and spatial lives'— of everyday consumer goods (Appadurai, 1986; Castree, 2004; Nevins and Peluso, 2008). These concerns are also tied to ever increasing rates of commodity consumption in the industrial economies (e.g. Dauvergne, 2008). The interest in commodities and the environment is not just academic. There has also been a dramatic societal shift in recent years towards certified green, organic, fair trade, and non-conflict goods, based upon detailed chain-of-custody protocols and consumer labeling systems (Busch and Bain, 2004; Cashore, Auld and Newsom, 2004; Vandergeest; 2007). The emergence of atmospheric carbon as an

enclosed, quantified, financialized and traded 'fictitious' commodity (Polanyi, 1944) arguably encapsulates the unprecedented degree of coordinated information management, regulation, and accounting which is now occurring around particular commodity forms. The rise of carbon markets also highlights how enclosure and accumulation are not just historical but also very contemporary phenomena (Hart, 2006). In this section I will establish how geographers study commodities through a number of key theoretical approaches, how commodities can be placed within broader understandings of capitalism, space, nature, and globalization, and how I propose to employ these ideas in this study.

Marx first forwarded an understanding of capitalism as an "immense accumulation of commodities" (1867, 2007: 41). As Nitzan and Bichler (2009: 87) write: "Marx was appalled yet fascinated by the 'mechanized' order of capitalism, a social system that objectifies its human subjects and fetishized their social interactions." Yet even Marx, as a nineteenth-century writer, could not have foreseen how the commodity form could become so deeply entrenched into human affairs. In contemporary society, exploitative social and ecological relations, organized within the commodity form, have become almost completely naturalized. For Marxist geographer David Harvey (e.g. 1982), this commodity fetish[2] takes on a crucial ideological function in a capitalist system, whereby the true power relations and forces of exploitation, crystalised in the commodity form, are

[2] Usefully defined by Pred (1998: 162) as a "selective non-consciousness."

masked and removed from everyday understanding (Castree, 2001, 2004; Bernstein and Campling, 2006a).[3]

Geographers are well placed to conceptualize and research the multi-scaled productions of nature, society and economy that enter into the making of commodities, and to examine the resultant biophysical and social transformations. A core strength of critical work on commodity systems lies in the way in which the vast complexities of the world capitalist economy are rendered more analytically comprehensible, through focusing upon specific industrial sectors and commodity groups. Economic geographers analyse the various stages of commodity production systems, and trace through its material flows, from raw material extraction and production, to manufacturing, transport, consumption, and disposal/recycling. A notable distinction in research on commodity systems, representing Marxist and postmodern orientations, is between those who emphasize industrial production, and the relations of labour exploitation, social injustice, and environmental degradation which enter into commodities (e.g. Hartwick, 1998, 2000; Guthman; 2004), versus those researchers who focus on commodity cultures; the role of consumption, retail, marketing image regimes, and consumer identities as the key driving forces of commodity system organization (e.g. Jackson, 1999; 2002).

[3] According to a classical Marxist interpretation of capitalism, the unveiling the commodity fetish involves a deconstruction of the commodity form according to a labour theory of value and profit. See Nitzan and Bichler (2009: 86-89) however for a critique of the Marxian concept of *socially necessary abstract labour time*, and its theoretical limitations as the "hidden entity that both underlies and embodies the entire architecture of the capitalist order" (p. 88). See also Guthman (2004) who argues that the commodity fetish conceals not only labour exploitation, but also the socio-ecological relations of production.

Through the attention of civil society, and rising interest in the social and environmental aspects of consumer goods, for some commodities at least, the veil of the mystification appears partially withdrawn. Yet, this is by no means a straightforward proposition, as even new standards and consumer labeling systems cannot remove all fetishistic aspects to commodity consumption—indeed they often create new ones (Bryant and Goodman, 2004; Carrier, 2010). Critics identify a highly selective re-working of the material and semiotic aspects of commodity production through new eco-standards and social certification systems, which are often based upon marketing principles (e.g. Guthman, 2004; Taylor, 2005). In this sense, Cook and Crang (2006) argue for a dual aspect to a Marxist interpretation of commodity fetishism— the critique of the commodity not as an object but rather a social relation forged through the exploitation of human labour and nature (involving regimes of ignorance); and the deconstruction of the commodity as deployed in advertising (involving new essentialized imaginaries).[4]

For some, the mystification and fetishism of commodities goes deeper. Castree (2001), drawing on Taussig (1980), argues that it is impossible to trace back through the layered socio-historical relations to uncover the 'true' or original exploitative power relations that form the underlying basis for commodification. In a point that is explored further in this dissertation with case examples from Laos, it becomes apparent that the hidden social and

[4] See also Guthman (2004: 235): "While labels are the necessary ingredients to set so-called ethical commodities apart, by doing so labels allow civil protest and public choice to be conflated with consumption choice and profit-making. Moreover, by giving centrality to the commodity as vehicle of social change, they resurrect the fetishism of commodities in a back door way."

ecological histories we can uncover through analysis of the commodity form are only the outcomes of previous layers of social, political and economic history.[5] Cook and Crang (1996: 148) thus argue that the most useful critical response to commodity fetishism is to disrupt the surface image of the commodity, and to establish divergent ways of understanding its *inevitable* mystification: "The issue becomes not, then, the authenticity or accuracy of commodity surfaces, but rather the spatial settings and social itineraries that are established through their usage."[6]

While discovering the original or true basis for commodification may indeed be impossible, my research project nevertheless takes seriously the attempt to excavate, through critical work and ethnographic investigation, the layered production of landscapes, livelihoods and identities (Li, 2003), formed in and through projects of commodification, and patterns of exploitation of people and nature (Hartwick, 2000; Bernstein and Campling, 2006a; 2006b).

The critique of the commodity fetish, the deconstruction of the commodity form, and the detailing of the relationship between commodities and a labour theory of value, are all central to the Marxist interpretation of capitalism. From this foundation, Hopkins and

[5] Taussig (1980: 9) writes: "Unless we realise that the social relations thus signified are themselves signs and social constructs defined by categories of thought that are also the product of society and history, we remain victims of and apologists for the semiotic we are seeking to understand."

[6] But see Bernstein and Campling (2006b: 425) for a spirited rejection of the postmodern approach to 'getting with the fetish'. In their Marxist approach, commodity fetishism is understood as a necessary and objective concealment of the social relations of production under capitalism, and they call for a rejection "…of any notion, explicit or implicit, that to the extent that adequate information about the social and/or environmental conditions of production of any particular commodity is available to consumers, then to that extent the fetishism of the commodity is reduced."

Wallerstein (1986, 1994) proposed studying uneven global development and Third World dependency through commodity chain analysis, as part of a theory of the 'world system.' World systems theory represents a tradition of critical research examining the extraction of surplus value and profits from the Global South to the North, organized through an international division of labour and capitalist commodity exchanges (Bair, 2005). The study of commodity production and circulation through world systems analysis was useful for moving beyond the limitations of analyzing the world economy through neo-realist approaches to international relations, and state-centric forms of political economy (what Agnew 1994, termed the 'territorial trap'[7]). Scholars drawing upon world system approaches are skeptical of mainstream notions of developmentalism, in which it is argued that all states or regions might enjoy equal—or even consistently positive—economic gains through adopting neo-classical economic policies of global integration and trade liberalization based on comparative advantage (Bair, 2005: 157; Gellert, 2010; cf. Porter, 1985). For world system theorists, attention is instead trained on the continual spatial reproduction of centres and peripheries, the first world and the third, through a hierarchical global political economy.

Around the same period, Friedland (1984) took up the idea of commodity relations from the world system theorists, forwarding an approach called 'commodity systems analysis'

[7] As Elden (2010: 3) notes, Agnew's conception of the 'territorial trap' involves a tripartite critique of traditional modes of understanding the spaces of the space: "that 'modern state sovereignty requires clearly bounded territories'; that 'there is a fundamental opposition between 'domestic' and 'foreign' affairs in the modern world'; and that 'the territorial state is seen as acting as the geographical 'container' of modern society'."

to the study of agro-food production. Gereffi and Korzenewiecz (1994) subsequently formulated global commodity chains (GCC's) as a basic research approach and methodology. Gereffi's (1994) approach identified four primary aspects to GCC analysis: (a) an input-output structure (or a manufacturing process) (b) a territoriality or spatiality (c) a governance structure, and (d) an institutional context. A key point of departure between Gereffi *et al*., and Wallerstein's world systems approach, was founded upon the debate concerning whether, as Bair (2005: 157) writes: "…globalization is better understood as a contemporary phenomenon enabled by increasingly integrated production systems, or as a process beginning with the emergence of capitalism in the long sixteenth century."

Gereffi's work explored the *novel* capitalist dynamics introduced through globally integrated transnational production networks, as opposed to the *longue duree* approach of Wallerstein. This led Gereffi to focus upon the specific forms of commodity chain governance, or what were called 'chain drivers.' These became formalized into the classic distinction between 'producer-driven' and 'buyer-driven' GCCs (Gereffi, 1994). This formulation around 'driven-ness' was a way of marking how differential concentrations of commercial profit within commodity chain groupings dictated regimes of political-economic power, the division of labour, and patterns of accumulation— for example, how top retail/marketing firms in the apparel sector wield significant financial control over multiple and dispersed subcontracted supplier firms (Bernstein and Campling, 2006a). The focus for GCC analysis under Gereffi and colleagues thus moved away from the

more radical world systems approach, and began to examine the more immediate development prospects for particular regions and nations, and the terms of their involvement with transnational firms and global production chains.

Whilst GCC research influenced by Gereffi focuses on explaining the modalities of firm and inter-firm governance, work in this area also tends to underemphasize: (i) the spatiality and territoriality of commodity chains, (ii) the articulations between firms and broader national and global institutional-regulatory structures, and (iii) the roles of consumption practices and commodity cultures (Bair, 2005). And while the role of the inter-state system in creating and enforcing inequality was upheld conceptually in the GCC approach, arguably this has not been emphasized in practice, and researchers underplayed the institutional structuring of state developmental regimes[8] (which are considered as more closely tied to area or placed-based relations, as opposed to chain or network-based logics). Macro-historical structures of power, such as colonialism, geopolitics and the formation of an international trading system were also moved to the background (see Friedmann, 1993; McMichael, 1995 on the international political economy of the international food regime).

As Bernstein and Campling (2006b) note, the conceptual clarity gained from using chain or network approaches to studying the global economy can be dulled if the researcher

[8] For example "…their class structures; structures of production and employment; patterns and scale of accumulation; backward and forward linkages; size, density and scope of the domestic market; income distribution, and so on" (Bernstein and Campling, 2006a: 260)

loses sight of how particular commodity arrangement fit into, and are shaped by, broader place-based institutions and political-economic regimes. In addition, while all commodities were considered applicable to GCC analysis, through the 1990s the emphasis was arguably concentrated on manufacturing-intensive industrial commodities with outsourced ownership and governance systems (i.e. buyer-driven manufacturing chains), as opposed to cases drawn from the natural resources or services sector.

Despite these omissions and methodological concerns, the advantages of the commodity systems and GCC methodology pioneered by Friedland and Gereffi to understanding key changes in the organization of economies were quickly apparent. More than previously, analytical focus was trained on detailing the structures of world commodity production systems, the particular actors and institutions involved in manufacturing, selling, consuming and regulating commodities, and the mechanisms of value extraction, profit and power that occurred throughout each of these steps.

Using a variant of the GCC framework termed as global value chains (GVCs),[9] researchers began to develop policy strategies, for firms and for countries, to become

[9] At a 2000 workshop in which Gereffi participated, there was a decision by the proponents of the GCC approach to switch to a terminology of global value chains (Bernstein and Campling, 2006a: 241). The idea for this move was that the term 'value chain' encompasses a broader range of contemporary goods and services, many of which are viewed as lacking mass 'commodity' features. Bernstein and Campling (2006a: 241-242) are critical of this, on Marxist grounds. Nevertheless, some important distinctions remain between the GCC/GVC approach of Gereffi and fellow travelers, and the more popular business management school approach to GVCs as characterized by Porter (1985). Certainly, a more critical-analytical approach to international political economy is evident in the former (e.g. Gereffi, Humphrey and Sturgeon, 2005). See also Gibbon and Ponte, 2005 for an approach that combines GVCs and analysis of commodity 'qualities' via convention theory (e.g. Raikes *et al.* 2000).

more efficient in capturing the distribution of value from competitive global industrial networks (Gibbon and Ponte, 2005). In 2005, Gereffi, Humphrey and Sturgeon developed a more comprehensive typology of global value chains (conceived of as *market, modular, relational, captive, and hierarchical* systems) that represented differentiated ways of conceptualizing how power is organized through commodity governance structures, and, importantly, the conditions under which these governance types might emerge. With the advent of GVC approaches, the emphasis shifted more closely to the organization of intra and inter-corporate supply networks, and upon how exporters based in global South states (particularly 'lead firms', that are able to dictate the terms of involvement of other actors in the chain) sought to upgrade their technological standards, and to capture a larger share of surplus value (Bair, 2005). Other researchers working within the GVC framework also sought to link an analysis of value chains more closely to a broader institutional-and place-based political context (see Gibbon, 2001; and the discussion in Neilson and Pritchard, 2009: 27-65). In a telling move that highlights the broad consistency between certain strains of GCC and GVC studies and neoliberal prescription, commodity/ value chain approaches have recently been adopted by many mainstream Global South development agencies, as a potential poverty reduction strategy. In Laos for example, donor projects are emphasizing how smallholders, and small and medium scale enterprises, might enhance the terms of their involvement in agrarian commodity production networks, around bamboo, rubber, livestock, coffee and other commodities.[10]

[10] Many (though not all) such GVC approaches being advocated through development organizations can be

For some, the increasing attention in GCC and GVC approaches to issues of firm organization, sectoral competition, and value-upgrading, comes at the cost of a more critical understanding of the overall logic of uneven development under capitalism, as well as social- equity and justice-informed viewpoint concerning those people left behind in harsh and competitive rounds of industrial restructuring. For others, the relatively simple, three-tiered spatial framework of world systems analysis (core, semi-periphery, periphery), or indeed Marxist, class-based approaches to understanding national development trajectories, are unable to sufficiently account for the hugely complex ways in which economic spaces and the forms of industrial organization in the global North and South, are being reworked through globalization. Many practitioners of GCC and GVC research subsequently moved away from radical political economy and world system approaches (e.g. Neilson and Pritchard, 2009).[11]

My own view is that the original GCC framework based in the world systems tradition can contribute towards an insightful and critical understanding, by illuminating the deeply hierarchical distribution of wealth, poverty and environmental degradation in the global

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thought of as consistent with neoliberalism, due to a set of accompanying prescriptions that advocate for privatized property rights, the dismantling of state owned enterprises and the retreat of the state to only a background regulator of economic transactions (no distorting subsidies), the cultivation of entrepreneurial self-actualizing identities amongst the poor, the singular focus on policies such as micro-credit, and the suggested advantages for smallholders to connect with large corporations through outgrower arrangements. I broadly agree with Neilson and Pritchard (2009: 7) that it is not as if these prescriptions are necessarily misguided, as much as reflecting an overly optimistic understanding of how markets function in reality: "By any account, the engagement of developing country agriculturalists with global value chains reflects a volatile and readily reversible patchwork of apparent successes and failures."

[11] As Storper (2001: 13) argues: "Translated into scientific practice, radical political economy is weak when it comes to the motivations and rationalities of actors and the functioning of the market and price system: in other words, most of the micro-level."

economy and the mechanisms which undergird it (see for example, Gellert's 2010 innovative conception of an 'extractive regime' in Indonesia, conceived as operating through resource commodity chain linkages). Nevertheless, contemporary commodity chains and their associated regulatory and institutional frameworks are also multi-factoral, and are constantly reworked through political, economic and social changes. A selective and judicious extension of the GCC framework, moving from chains to networks, might assist with broadening the range of factors and regulatory processes that we consider as influencing the structure and functioning of commodity systems.

From Chains to Actor-Networks in Economic Geography

The emergence of the network concept offers a more radical de-centering of a number of foundational concepts in economic geography (Murdoch, 1997; Dicken *et al.* 2001). Drawing from formal actor-network theory (ANT) (e.g. Latour, 1991, 2005; Callon and Law, 1995), the range of actors and institutions that affect the organization of commodity systems are extended beyond those directly involved in production and supply chain organization (for example, consumers, state agencies, eco-label certification systems and other global regulatory bodies, NGO campaigns, local communities and their representatives, and so forth). Networks can be understood as comprising multiple strands, concentrated as nodes within an overall commodity system. According to ANT, the *actants* enrolled into network flows can also include non-human, biological entities (shrimp, eucalyptus trees), and non-living materials (minerals, water, roads, port facilities, communication technologies). This conceptualization of the agency and materiality of the

non-human is useful for understanding role of biophysical processes in influencing the political-economic construction of commodity networks, and can shed light on the trajectories of commodification for specific natural resources (Bridge, 2001; Peluso and Watts, 2001; Prudham, 2003; Bakker and Bridge, 2006).

Actor-network theory thus forwards a radical dismantling of 'dualistic' thought— breaking down binary categories of structure/agency, flow/territory, global/local, centre/periphery, and even human/non-human— reframing the latter as 'heterogeneous associations' between people and the material world (Murdoch, 1997). In network approaches, commodity systems are only global to the extent to which they connect different spaces and facilitate 'action at a distance' (Latour, 1987); at no point in the system does the commodity depart from the local, and there is never a global scale exerting power and authority over localities. Moreover, through the flat ontologies of ANT theories, no particular point or node in a network are pre-determined as privileged sites of power. Power is instead understood in terms of the relative positioning of actors and institutions within social-material networks, and their ability to establish and control the functioning of the network at certain key nodes ('obligatory passage points' in Latourian terms) [e.g. Latour, 1999; see also Allen's (2003) exposition of power as a relational effect of spatially constituted social interactions].

Debates are contentious around the most appropriate concepts through which to consider relationship between networks, place and territory. The emergence of the network

concept in academic theory (e.g. Castells, 1996) was closely linked to the rise of economic and cultural globalization, or in Harvey's (1989) phrasing, 'time-space compression.' Networks (commodity networks, but also for example, communications networks, or connectivity between communities) stretch across global spaces, and connect people and re-make places and territories. In this sense, through globalization, territory is (and indeed, always has been) 'unbounded' from the local scale (e.g. Massey, 2005). Sheppard (2002) for instance forwards the metaphor of 'wormholes' to understand the differential ways that previously isolated places are connected and re-made through networks. There is thus a distinct 'topological' organization to actor-networks: "As they stretch over the globe, networks also usher in a new spatiality" (Sheppard, 2002: 317). This relationship between commodity networks and the production of space and territoriality is a crucial insight, which I use in conceptualizing contemporary transformations in rural Laos.

While ANT represents an innovative critique of some of the Cartesian foundations of social-science inquiry, actor-network ontology is not immune from criticism. At the extreme end (some of which goes beyond Latour's ideas), network studies flatten out questions of scale and of structural (hierarchical) political or economic power (e.g. Marston *et al*., 2005; see e.g. Leitner and Miller, 2007 for a critique), and seems to avoid meta geographical-historical theories of the state or capitalism. Dicken *et al*. (2001) thus favour an approach to chains or networks as just one amongst other heuristic devices through which to understand socio-spatial relations and the global economy, and they

seek to retain a conception of 'structural', place-based power relations— for example, involving the scale of the territorial state and the importance of state regulatory regime in national space. These authors also seek a relational approach to networks and space, proposing: "… a mutually constitutive process: while networks are embedded in territories, territories, are, at the same time, embedded in networks" (p. 97).

As has been widely noted, the shift in commodity research from the concept of chains to that of networks or commodity circuits holds the potential to obscure the sites and institutions in which political-economic power is concentrated. For Leslie and Reimer (1999) and Hartwick (2000) the move from chains to flat networks, and from the forces of production to the cultures of consumption, brings with it the danger of missing the real exploitation of people and degradation of nature that is systemic to the development and organization many commodity systems (see Nevins and Peluso, 2008). However, for Dicken *et al*. (2001), the network concept also might expand the potential for ethical involvement in economic relations as social-environmental regulation can occur through consumers or NGOs, as well as through state structures.

The use of discursive imaginaries such as chains or networks in economic geography of course introduces a further series of questions concerning the role of metaphor, narrative and representation in social science inquiry. Critical geographers expanded upon the inseparability of social reality and discourse, and the key ways in which 'the economy' is not just a set of material input-output flows, but also a social and political construction

based on language and discursive formations (e.g. Barnes 1996; Kelly, 2001; Bridge, 2001). As with any metaphor used to describe social processes— including the metaphors of chains and networks— the imaginaries embedded within these terms can shape the way we think about the economy, as a field of practice, measurement and intervention (Mitchell, 2002). A reflexive consideration of how language and discourse can influence ideas of the structuring of social reality, and the practical usefulness of developing new and more enabling interpretations of social problems, frames my approach in this dissertation.

I selectively incorporate a number of the insights developed through actor-network theory and meld them with a number of other key geographical concepts— including space, place, scale, and territory— to examine the variegated geographical dimensions of contemporary socio-economic and environmental change. I do not see the need to choose between one or two of these foundational geographical concepts in my research— or reduce my analysis so that everything becomes viewed through the logic of networks, scale, or territory. Clearly each of these concepts are relevant, and indeed can be thought of as co-constitutive (Dicken *et al*., 2001). Different combinations of these concepts are useful to investigate research questions in particular socio-spatial situations (see e.g. Jessop *et al*., 2008). While respecting the ideal of internal consistency and parsimony, theory can also be considered as a kind of map— a guide for helping one to understand particular research problems, and less as an abstracted end in itself (Turnbull, 1989).

We now turn to a set of recent innovations that are central to my approach to economic geography and commodity studies. Beginning in the late 1990s, researchers including Leslie and Reimer (1999), and Murdoch (1997), sought to more fully incorporate space and territory into commodity chains and networks, and to better integrate commodity studies with questions of the regulatory state, and with emerging global governance systems (see also Gellert, 2003: 59; on GCCs and the need for *historical* specificity and analysis of national socio-political contexts; see also Hughes and Reimer 2004; Neilson and Pritchard, 2009). Incorporating a more explicitly spatial and political-geographical understanding of how commodity chains are organized and function, opens up a series of new questions and approaches, related to the linkages between commodity chains and: natural resources; states, industrial policy and regional development; the spatial politics of commodity production and consumption; and the relationship between commodities, neoliberalism, and territorialization (e.g. Watts, 2004a, 2004b). The recent literature around 'Global Production Networks', as developed by a group associated with the University of Manchester, offers an innovative set of advances in thinking about these relationships.

The Geographies of Global Production Networks:

An emerging area of research in economic geography around 'global production networks' (GPNs), centers upon how to best understand the increasing role and power of transnational corporations in coordinating and expanding complex transnational supply chains. GPN models link issues of space, territoriality, and political-institutional

'embeddedness' (Granovetter, 1985), with the input-output structure of traditional commodity chain analysis (Henderson *et al*., 2002; Hess and Yeung, 2006; Coe, Dicken and Hess, 2008). Proponents argue that a GPN heuristic framework offers a number of distinct advantages over GCCs and global value chains. For Coe, Dicken and Hess (2008), the GPN model: i) is inclusive of all major actors; ii) flexible in geographical scale; iii) foregrounds the embeddedness of GPNs in socio-political contexts; iv) invokes a more nuanced version of power in comparison to GCC analysis; and v) aids in identifying key points of value creation and capture, and sites of potential regulatory reform or intervention. Henderson *et al*. (2002: 444) add that the production network approach is amenable to incorporating advanced financial and marketing services, and labour issues, into commodity system analysis (although as Vind and Fold, 2010: 58, note, this potential seems to have remained unrealized). Levy (2007) argues that the global production network concept better captures the political dynamics of component sourcing through multiple subcontracted firms. For my purposes, the GPNs can highlight how large resource firms source raw materials from multiple geographic locations and coordinate or refine these flows into centralized and highly capitalized production facilities (e.g. oil refineries, or pulp mills).

This novel approach to understanding the global space-economy is therefore based upon combining an analysis of the structuring of commodity networks, which produces a reworking of economic activity across multiple social and institutional contexts (Levy, 2008), to a geographical understanding of the production of territory and space under

capitalism (Lefebvre, 1974, 1991; Merrifield, 1996; Smith, 1984, 2008; Harvey, 1996: 261-264). More than with the concept of commodity chains, I suggest that GPNs might allow us to better consider how and why certain spaces and locations are identified and successfully integrated into firm-based production networks, why these sites are selected over other places, and how new territorializations are produced through the integration of global networks and state power.[12] In addition, Kelly (2009) extends the GPN approach to the considering community and household scales and social reproduction. Other network-oriented studies make innovative contributions linking network analysis to questions of place, territoriality, and political-institutional 'embeddedness' (e.g. Neilson and Pritchard, 2009[13]); and the relationship between GPNs, strategic coupling, and regional economic change (e.g. Yeung, 2009). Glassman (2011) makes the useful argument for GPNs to better incorporate the contested geo-politics and the violence that can accompany global commodity production.

As a number of commentators have noted (e.g. Coe Dicken and Hess, 2008: 278; Bridge, 2008a), both the GVC and the GPN literature have often sidestepped analysis of extractive industries in favour of manufacturing and services, and not often has an explicitly networked commodity analysis has been connected to the environment, or to labour issues. Recently, scholars such as Bridge (2008a) have sought to apply the insights of the GPN framework to extractive industries with global supply operations. In the age

[12] There are eventual limitations and constrains with the network approach, to engaging with issues of land, ecology and livelihoods however. This issue will be further explored below.
[13] Although Neilson and Pritchard's 2009 study is based in the GVC literature, as opposed to GPNS.

of transnational oil, mining, forestry agri-business and seafood companies, a GPN methodology could facilitate closer attention to the rationalities and politics through which new territories and resources are integrated into the 'smooth' spaces and flows (Castells, 1996) of global commodity production. Analyzing GPNs in resource sector industries thus holds the potential to bridge the gap between commodity studies, territory and the environment, and the material and discursive mechanisms involved in nature's commodification.[14] Bridge (2008a) forwards an excellent illustration of the insights that result from analysis of the materialities of nature, and the territoriality of extractive commodity regimes through production network approaches.

Researchers using GPN approaches also move beyond analyzing the generation and distribution of value within single, firm-based commodity systems. A key aim of GPN researchers is to better locate the logics of accumulation within commodity network organization in relation to key, inter-firm competitive rationalities (Bridge, 2008a). Attention to intra-sectoral logics is also a focus in the global value chain (GVC) literature, although I depart from the implicit normative framing of the GVC approach. I am less concerned with questions of firm 'upgrading' and an understanding of inter—firm competitiveness in developmentalist terms. Rather, I focus on understanding the methods

[14] Neilson and Pritchard (2009: 56) raise the point that some sectors may be more suited to chain approaches (e.g. 'single' commodities, they cite tea or coffee as examples), versus network heuristics (e.g. advanced manufactured commodities that involve complex assembly e.g. automobiles). Oddly, their study on institutional embeddedness and tea production in south India then proceeds to utilize the GVC approach. In any case, following their argument, I would suggest that this study, on the political ecology of resource concessions associated with the forestry sector, could be one which may be suited to a territorial-informed GPN methodology, due to the pulp and paper industry's globally integrated supply zones, and extensive territorial footprint.

by which powerful 'lead firms' carve out advantageous agreements with state governments, to control prices, and to capture resource rents and value. I examine the implications of these processes for a broader range of societal issues, including the prospects of equitable local development and environmental sustainability. Close attention to the competitive dynamics between firms— which I suggest is rather under-developed in political ecology's engagement with political economy[15] — can aid in locating the deeper political-economic calculations and rationalities that come into play when resource industries undertake strategic greenfield expansions, or expand through mergers and acquisitions. A key argument of this dissertation is that without closer attention to the spatial-territorial dynamics and supply logics that guide accumulation and the expansion of powerful global resource firms, we are left with an underdeveloped understanding of the contemporary global political economy, and a limited view of the potential for intervention in this system.

I apply a GPN framework to understand how differential patterns in core firm profitability amongst Japanese pulp and paper companies have led to regional expansions in manufacturing capacity, targeting in particular the Chinese market. This in turn brings to the fore the position of Southeast Asian countries, including Laos, as potential

[15] For some examples of what I will call an 'economic political ecology' which combine detailed understandings of economic restructuring within a specific resource sector or cluster of commodity sectors, with examinations of changing property rights and local ecological livelihoods in the global South, see *inter alia* Ribot (1998); Gellert, (2007); Nevins and Peluso (2008); Mansfield (2004); Sikor and Pham (2005); Hall (2003); Flaherty, Vandergeest and Miller (1999). See Bridge (2008b), and Soyez and Shulz (2008) for a discussion of the potential for 'environmental economic geography'; and Bridge and Jonas (2002) on 'critical industrial ecology', respectively.

plantation production zones to supply such pulp mill expansions. A stronger understanding of the economic and geo-political logics of accumulation and patterns of crisis which drive the political economy of resource commodities, opens up the potential for critical political ecologists to begin to better anticipate how the industry is expanding, under what rationalities and logics this occurs, and to better identify the potential sites or institutions for engagement, regulation or resistance.

A renewed emphasis upon the institutional relations between firms and states is a second key aspect I find useful in the GPN analytic. This is crucial for locating the complexities of firm-state interactions as these occur in space, and as these interactions become involved in the production of new territorial formations (Henderson *et al*., 2002; Coe *et al*., 2004). This enhances our conception of the role that structural (state-based, global) institutions play in establishing the regulatory environment that governs particular commodity networks; something of a lacuna in the GCC literature (Bair, 2005). An analysis of the encounter between global multinational firms and peripheral or semi-peripheral states also opens the door for an understanding of a range of hybrid ideologies and practices of variegated neoliberal/authoritarian governmental power, which are apparent in certain East and Southeast Asian contexts (see e.g. Jayasuriya and Rodan, 2007; Nevins and Peluso, 2008; Brenner, Peck and Theodore, 2010). At the same time, examining state-firm interactions through specific commodity-based networks aids in decentering the state, and focuses attention upon particular state institutions (forestry departments, land agencies, interior ministries, etc.), as well as upon the politically

charged interactions and governance structures that occur at multiple scales (e.g. Gellert, 2010). As Levy (2008) notes, the [GPN] framework: "…offers a multidimensional and multi-level approach to understanding power relations, ideology, and value appropriation." For my purposes, this introduces the potential for a more complex view of the relationship between state power and globalization beyond the spatial container conception of the state, and beyond the single production chain conception of the GCC approach.

GPNs and 'Strategic Coupling'

My specific interest in Coe *et al.*'s (2004: 469) framing of the interaction between firms and nation-states in resource sector GPNs through the concept of 'strategic coupling', is taken up as a key organizational approach in Chapter 3 (see also Bridge, 2008a: 393; and Yeung, 2009). Coe *et al*. (2004: 476) write:

> "…the capacity of regions to capture value is a dynamic outcome of the complex bargaining process between regional institutions and focal firms in global production networks. The presence of region-specific assets is only relevant in this process if these assets are complementary to the strategic needs of trans-local actors embedded in global production networks."

Coe *et al*.'s formulation helps me to understand, in more conceptual terms, how global resource production networks are spatialized, territorialized and relationally connected to state and supra-state regulatory regimes, thereby producing distinct socio-economic transformations in some places— and not others. Moreover, a *critical* GPN approach, drawing upon its roots in Marxist political economy, can extend beyond mainstream economist interpretations of the changing location of industrial extraction or

manufacturing platforms (Levy, 2008; Glassman, 2010; Gellert, 2003).

Understanding GPNs as commodity networks embedded in places, and formed in relation to state and supra-state regulatory power is helpful for understanding the relationship between political economic power, enclosure, and the creation of governable spaces and subjects organized to support commodity production (Rose 1999; Watts, 2004b). Yet, resource commodity networks as realized on the ground, are also based within, and transform, local ecologies, and almost always involve some form of corporate engagement with communities. This produces planned as well as unexpected socio-natural transformations and development outcomes, which at times can also produce chaotic 'ungovernable' or even violent environments. This basic framework thus represents a key basis for my interest in connecting 'commodities in motion' with resource geography, political ecology and community ethnography (see e.g. Peluso and Watts, 2001; Tsing, 2004).

Complex Ecological, Territorial, and Place-Based Transformations: The Limits to Networks?

The limits to network ontologies may become evident however, when confronted with grounded territorial transformations and place-based ecological processes—especially those ecological changes occurring outside of the scope of the production process in question. Recent work in political ecology points to some ways forward. Rocheleau and Roth (2007: 435), for instance, confront the conceptual tension between territories and

networks directly with their formulation of 'rooted networks':

> "Territories are equally created by networks and intertwined with them; territories are no longer limited to their representation in Cartesian space… The territory can be seen as the rooting zone of an entire network, sub-network or of individual nodes… The territories of extraction can be seen as one kind of rooting, along with the territories of movement, transformation and residence."

This non-Cartesian approach to territory represents one innovative way out of the territory-network conundrum, which also builds upon ideas of non-equilibrium ecologies and nature-society hybrids, developed by 'ecological' political ecologists (e.g. Zimmerer, 2000). I apply these ideas of integrating territories, ecological and networks explicitly in Chapter 4, where I discuss in detail the relational, patch worked social and environmental transformations introduced through commodity networks and resource concessions in Laos.

Summary:

This dissertation develops an empirical examination of global commodity production networks in action. I use a specific 'slice' of the global resource economy (the tropical fast-growing plantations, and the pulp and paper sector) both as a particular focus of scholarly inquiry in its own right, and as a methodological entry point for examining a broader set of processes tied to commodification, globalization, neoliberal economic restructuring, environmental change, territorialization, and agrarian transition in Southeast Asia. Subsequent chapters employ critical policy analysis and ethnographic methodologies to understand in more detail how ecological commodification and global

production networks articulate with the state, with a national politics of rural development, and with local livelihood possibilities in Laos.

In particular, I connect patterns of greenfield expansion of extractive pulpwood commodity plantations in Southeast Asia, to an analysis of the political capacities of powerful firms: to control points of value accumulation (largely through the identification and capture of land-based resource rents); to generate enhanced rates of profit; to compete with key intra-sectoral corporate rivals; and to boost monopoly market positions (see Baran and Sweeney, 1966; Nitzan and Bichler, 2009). I examine how globalization in the pulp sector establishes a certain form of global production network, parts of which are consistent with neoliberal formations. Second, the idea of the embeddedness of GPNs in particular sites helps connect processes of commodity production to the developmental-regulatory state. This opens an appreciation for how Laos is in turn located, in terms of the interests of regional and global forestry production systems.[16] And third, a fine-grained focus upon the actual spatial realization of plantation projects in historically produced geographical contexts, allows for close examination of territorialization, enclosure, displacement, social resistance, and the establishment of new governmental regimes over nature and people. I suggest that these are inclusive moves for connecting

[16] An unfolding of a regulatory and governmental rationality through state-capital relations brings to mind the path dependency of economic reforms in the socialist bloc, which, some suggest, once initiated, then require continual deepening of market reforms. See Burkett and Hart-Landsberg (2005) on the 'slippery slopes' of economic reform and capitalist consolidation in China.

global commodity production networks to a locally informed, ethnographic understanding of the political ecology of resource-sector development in the Global South.

Through integrating insights from the geographical literature on global commodity chains (GCCs) and global production networks (GPNs), Chapter 3 develops an analytical framework for understanding a set of underlying capital logics and political-economic drivers of commodification in Laos' pulpwood plantation sector. My analysis explores how commodity networks are always inherently spatial, and are interwoven into the territorializing practices of development in ways which dialectically establish complex socio-natural systems in particular sites and places, forming new relations of environmental governance, invoking new local experiences with development and establishing novel human subjectivities. In developing this, I integrate Coe *et al*.'s (2004) notion of 'strategic coupling' to conceptualize the complex and dynamic interaction between external GPNs and global resource capital on the one hand, and the Southeast Asian regional and state governance structures on the other.

The GPN literature offers an innovative approach to understanding the economic logics that govern commodity systems, and crucially, their articulation with a (de-centered) state, intra-sectoral competitive firms, global regulatory institutions, as well as with territory and nature. Ultimately however, as will be expanded upon in more detail, there are likely limitations with a purely network-based ontological approach, for understanding 'extra-network', or place-territorial issues, including aspects of socio-

environmental transformations, place-based communities and their social histories, and scaled interactions from local to state, regional and global. This is where the fusion of GPNs with political ecology holds distinct advantages. Later in this dissertation, I show how the articulation of global production networks with territorialized resource assets in Southern countries, becomes involved in the relational production of new extractive frontiers (Tsing, 2004; Bridge, 2008a; Barney, 2009). Such sites can be characterized by stark patterns of uneven accumulation, ecological degradation and impoverishment, as well as attempts to establish new, productive modes of governing nature and people.

2.2 Political Ecology and Social-Nature

A second key academic literature that informs this dissertation is political ecology, particularly as influenced through neo-Marxist and Polanyian-inspired agrarian and peasant studies research in the Global South. Here I provide a broad overview of the central themes, debates and 'epistemological turns' of this field of research over the past two decades, while orienting the reader as to how I see political ecology as linked with processes of capitalism, enclosure and nature's commodification, and to how I will actually employ these concepts in the dissertation.

While the range of topics, questions and methodologies employed by researchers working within the broad field of political ecology is wide ranging (and indeed some critics such as Walker (2003: 7) accuse it of a 'sprawling incoherence'), a core strength of the field has been a multi-scaled approach to understanding the political and economic

rationalities, and uneven social outcomes, of nature's commodification. An interpretive and integrative approach to environmental problems has been in the core toolkit for political ecologists, particularly as forwarded by Blaikie and Brookfield (1987), who traced the 'chains of explanation' behind land degradation and poverty in Third World contexts.[17] In an key pioneering text, Blaikie (1985) carefully traced through the scaled political-economic power relations that ultimately produce local patterns of soil degradation— running from local land managers, to 'horizontal' socio-cultural and political regional relations, to the state and to the wider global economy. Early political ecologists thus drew useful connections that linked ecology, property and livelihood changes, to broader forces of political economy, patterns of state formation, and regimes of scientific knowledge (e.g. Hecht, 1985). Tracing through a set of political-economic causal explanations for environmental degradation through changing systems of property rights is a fundamental aspect to how I approach the political ecology of plantations and hydropower in Laos.

Blaikie (1985) also introduced an understanding of joint society-nature relations in political ecology; an idea also taken up in the work of Cronon (1995) in the discipline of environmental history [see also e.g. Dupuis and Vandergeest, (1995), from an environmental sociology perspective]. In critical geography, Neil Smith's (1984) early work on the social production of nature and uneven development under capitalism retained the Marxist conception of human-nature dialectics (as opposed to a non-dualist

[17] See also Vayda's (1983) formulation of 'progressive contextualization' in human ecology research.

conception of nature-society hybridity through networks). Later authors connecting geography and political ecology, such as Swyngedouw (1999), conceived of the commodification of Spanish waterscapes in terms of a more fully relational conception of "socio-nature", although this also was inflected through with implicit Marxist dualisms between the two. In agro-food studies, Fitzsimmons and Goodman (1998: 195) used the term, 'nature's corporeality', to refer to a stronger integration of nature-society relations, that did not privilege "either nature or society as ontologically prior." A number of the 'stronger' approaches to thinking through the hybridity of nature- society are non-economic (and specifically non-Marxist) in form, drawing inspiration from discursive constructionist approaches (Braun and Wainwright, 2001); the sociology of scientific knowledge (e.g. Jasanoff, 2004), and the 'heterogeneous associations' of actor network theory (e.g. Latour, 2000; Whatmore, 2002), to analyse a deep and ongoing co-production of the natural and social worlds (see also Demeritt, 2002; Castree, 2002). As I will explain, my approach builds upon a relational approach to nature-society transformations in rural Laos, although for the analysis presented below I also avoid collapsing the distinctions between humans and nature altogether.

A common hallmark of political ecology has arguably been the emphasis on local-based and ethnographic analysis of the implications of differential access to environmental resources (Rocheleau, 2008). And while complex and multi-scaled chains of explanation are often invoked, a second core strength of political ecology has been the innovative and empirically detailed studies of *causation* in environmental problems—that, crucially,

understands poverty not as a 'thing' in itself or a pre-existing condition,[18] but rather as a contested outcome of social and political relations of production (Watts, 2009: 546). As Zimmerer and Bassett (2003:276) argue, the integrative approach of political ecology is distinguished from a "…list-making of factors, a method that only nods to connections or vaguely imputes the role of a general condition such as poverty."[19]

Interestingly, Peet and Watts (1996: 8) have forwarded the opposite interpretation from Zimmerer and Bassett, arguing that the notion of causality in the political ecology of Blaikie and Brookfield represents an "…extremely diluted, diffuse, and on occasion voluntarist series of explanations. Degradation can arise under falling, rising, or stable population pressures, under an upswing or downswing in the rural economy, under labor surplus and labor shortage; in sum, under virtually *any* set of conditions" [original italics]. In my opinion, while environmental transformations can indeed be overdetermined (i.e. ecological systems are *complex*), Peet and Watts' concerns do point to political ecology's general under-engagement with political economy and lack of attention to actually existing commodity markets, and an underdeveloped conceptualization of commodification processes. Although recent work on neoliberal natures has begun to address this issue more systematically, this work has, for the most part focused on neoliberalism as articulated in advanced Western economies. I will argue that

[18] Parallels to the critique of the commodity fetish are evident here.
[19] See also Blaikie (2008) for a discussion of the "academic hitchhiker's" view of political ecology.

neoliberalism is only one amongst many political-economic logics of accumulation that operate in most Global South contexts, and certainly in Laos.

A key concept in political ecology relates to socio-economic marginalization—how the rural poor, and subaltern groups within communities, are dislocated and displaced from valuable resources, and can be forced to over-exploit local environments in attempts to delay their own social destruction (in Blaikie's terms, a 'desperate ecocide') (Blaikie, 1985: 117; Blaikie and Brookfield, 1987: 13).[20] Along these lines, the core areas for critique by political ecologists include neo-Malthusian interpretations of environmental decline (Blaikie and Brookfield, 1987), and putative correlations between environmental scarcity, food insecurity, and political or ethnic violence (see e.g. Watts, 1987; Peluso and Watts, 2001; see also the exchange between Peluso and Watts, and Homer-Dixon, 2003). Instead, differentiated access to environmental resources, based upon global political-economic systems of power, including colonial capitalism (e.g. Stoler, 1985; Peluso, 1992; Grove, 1995; Sivaramakrishnan, 1999; Davis, 2000), state socialism and post-socialism (Shapiro, 1999; Verdery, 2003), and contemporary neoliberal capitalism (e.g. Gellert, 2005), produce variegated human-environment outcomes, that can be understood through empirical research.

[20] The rural poor "…may be forced to destroy their own environment in attempts to delay their own destruction" (Gallopin and Berrera, 1979, *cited in* Blaikie, 1985:19).

The relationship between social marginality, resources, and access is a closely related area of research for political ecologists, that builds upon the work of common property theorists and the critique of Hardin's 'tragedy of the commons' thesis (Ostrom, 1990; Ribot and Peluso, 2003).[21] Political ecology researchers have documented the complexity of legal regimes and customary practices of resource tenure and community-based resource management across global South sites (e.g. Peluso, 1996; Baird, 2010a). Importantly, political ecology researchers do not view local property regimes in isolation from broader political economic processes and transnational networks (Vandergeest, 2006), and local commons are typically understood as reflecting multi-scaled socio-ecological and economic systems. These ideas around political ecology and property represent the foundational core of my approach to understanding key issues of environment and development in Laos.

Explaining the actors, mechanisms and contradictions through which economic accumulation is connected to the environment, property-making, and environmental politics has thus been a highly influential stream in political ecology research (Bryant and Bailey, 1997). Such 'actor-oriented' approaches in political ecology are closely influenced by neo-Marxist studies of agrarian change and class formation in Third World contexts (e.g. Hart, Turton and White, 1989; Bernstein and Byres, 2001; Agrawal and

[21] Johnson (2004) usefully distinguishes between a number of the key schools of common property research, framed as the 'collective action' school versus the 'entitlements' school; or what Mosse (1997) termed the 'economic-institutional' and 'sociological-historical' interpretations.

Sivaramakrishnan, 2000). Since the 1980s, the emergence of environmental movements in global South forest and agrarian contexts has been the focus for a number of key critical political ecology texts, particularly as such environmental movements have utilized the concepts of community-based natural resource management (Brosius, 1999; Li, 2002a; Brosius, Tsing and Zerner, 2005).

The integration of political ecology with post-structural and post-colonial theory in the 1990s further stimulated work on environmental conflict as a realm of social meaning, and facilitated research in which poverty and environmental problems are viewed as socially, politically and discursively constructed and reproduced through the biophysical environment (e.g. Peet and Watts, 1996; Escobar, 1999; Fairhead and Leach, 1996; Kosek, 2006). A deepened emphasis on cultural politics in political ecology has formalized studies on the intersections between resources, property and gender (e.g. Rocheleau and Edmunds, 1997; Schroeder, 1999; Gururani, 2002), as well as between nature, identity, and territoriality (e.g. Li, 2000; Raffles, 1999, Vandergeest, 2003; Moore, 2005). Indeed many scholars primarily approach political ecology as a cultural-political approach to questions of poverty, development and the environment, examining how struggles over access to resources are not singular, class-based political-economic questions, but how livelihood struggles are also formed in relation to co-existent struggles over identities (including race), and social meaning (Williams, 1991; Moore, Kosek and Pandian, 2003). The post-colonial critique and its applications for political ecologists go

deeper however—extending to question the fundamental ways in which our very 'objective' understanding of space, place and ecosystems ('Laos', 'Southeast Asia', 'tropical forests') are constructed in part through the meta-power relations of imperialism and (post)-colonialism (Wainwright, 2005).[22]

I forward that approaches informed by cultural studies hold crucial relevance for the political ecology of upland Southeast Asia. Across the region, upland ethno-religious identity structures have formed not out of timeless autonomous tradition, but in relation to colonialism, and modernising state building projects (Leach, 1954; Li, 2001; Jonsson, 2005; Scott, 2009). Rural identities in Southeast Asia have often coalesced in relation to upland: lowland (*pa: meuang;* or forest: town) diacritics, and at times, through place-based agro-ecological practices.[23] In the contemporary period, ethnic stereotypes and patterns of racialization have been deployed in relation to upland-lowland socio-environmental issues and resource disputes in Southeast Asia (see Vandergeest, 2003 for a critical review), which at times have escalated into political conflict and violence (Wittayapak, 2008; van Klinken, 2008; Peluso, 2008). In contemporary Laos, whilst political violence specifically over the issue of access to resources has thankfully been

[22] Wainwright (2005: 1034) writes: "As soon as we define a space or region as our object ('North America'; 'the West'), we stand to lose sight of its becoming. We can forget that the very objectivity of a space is a problem to be explained, and not a scale of analysis to be embraced."
[23] Jonsson (2005: 150) however notes that for Thailand, "The idea of the forested wilderness is no longer diacritical for the classification of mountain peoples relative to Thai society." (The extent to which this still holds for Laos would be open to debate).

rare,[24] ethnicity remains a fundamental axis that shapes state bureaucratic practices (see Pholsena, 2006), and that mediates the politics of environment, poverty and development (e.g. Chamberlain, 2007). Although due to the selection of field sites the differential politics of ethnic identity in Laos does not form an absolutely central component to this dissertation, these issues are nevertheless important to recognize. In post-war Laos, hierarchical inter-ethnic and urban-rural relations are deeply embedded within state power and governance structures, particularly as related to policies concerning upland resettlement (Baird and Shoemaker, 2007) and swidden farming practices (Ducourtieux *et al*., 2005). As will be explored, state efforts to eliminate swidden on environmental (and at times explicitly, cultural) grounds forms a key rationale for the promotion of plantation agriculture and rural modernization in Laos (Barney, 2009).

Given its critical orientation, political ecology can lie in some tension with research methodologies based upon managerialist approaches to 'environmental governance,'[25] or theories of ecological modernization (e.g. Mol, 2006; Sonnenfeld, 2000), in which legal and technical policy reforms are understood to produce improvements in environmental quality (Buttel, 2000). Whilst policy-based research on environmental policy and governance has certainly represented a productive arena for engagement (Rocheleau, 2008) (and which my other professional work has also sought to contribute towards), for

[24] Non-resource based forms of political violence in Laos, as linked to the Indochina Cold War conflicts, have of course been widespread.
[25] Governance can be defined as: "… the process of social and economic coordination, management, and 'steering'" (Painter, 2009: 312).

Marxist or Polanyian political ecologists there is also a general critical leaning towards exploring the structural contradictions of ecological conservation and poverty alleviation under capitalism, and close attention is paid to tracing the uneven distribution of environmental costs and financial benefits. Even policies that might be said to produce positive or efficient environmental outcomes (such as the creation of protected areas) can still be based upon significant violence and social injustice, for example, through evictions of communities with historical claims to those spaces (e.g. Ganjanapan, 1998; Roth, 2004).

There have also been questions raised about the depth of political ecology's actual treatment of ecological processes. Zimmerer and Bassett (2003) for instance argue for a far more sustained engagement with environmental science and the biophysical world. The 'ecological' political ecologists have sought in particular to incorporate post-Clementsian, non-equilibrium concepts (e.g. Forsyth, 2003). In this manner, a political ecological understanding of agrarian change, building upon the concept of agro-biodiversity [e.g. see Zimmerer's (2003) discussion of "overlapping patchworks" of land use in the Andes; versus the 'tiered zonation' model] represents a productive realm for continued research. For Zimmerer, the ecological dimensions of farm-level decision-making and cropping patterns are viewed not in isolation, but in relation to political economy, and dominant discourses of the environment (see also e.g. Bryant, 1994).

Zimmerer's notion of 'overlapping patchworks' in local land use can also be extended to develop a more relational perspective to nature, and the local inseparability between different land uses and commodity sectors through the ecology of landscapes. In this dissertation I will show how one resource 'sector' (e.g. forests) affects the ecology of the other (water) through relational human-ecological interactions. Such work can also highlight understandings of geographical scale as both socially and *ecologically* produced (e.g. Zimmerer and Bassett, 2003), and which conceives of relational space and scale beyond the earlier 'chains of explanation' metaphor (Rangan and Kull, 2008). In Chapter 5 I develop this idea further through a 'political ecology of cumulative effects', where I examine the complex connections between nature, commodities and social relations in rural Laos (see also Barney, 2009 for an outline of the 'patchworked frontier' in Laos; see Latour, 1993, and Robbins, 2001a, on socio-natural hybrids and problems of 'non-modern landscapes').[26]

My approach to understanding socio-nature in political ecology is influenced through the work of Raffles (1999), who employs the notion of an 'embodied network', and discursively and imaginatively materialized socio-natures, in explaining the re-creation of place and locality in a town on the shores of the eastern Amazon. He combines a non-reductive political economic analysis, as based upon circuits of transnational and local

[26] Goswami (2004: 27) usefully defines radical relationality as representing a "systemic interdependencies between its various parts."

commodity trade, with the traveling networks of environmental narratives, in which a recreated, socio- nature is actively produced. For Raffles, it is through the travels of both the Amazonian inhabitants and their stories, that distinct Amazonian places are constructed, rather than through an overarching and overdetermining scale of the global. Raffles also does not obscure in his narrative the underlying 'modes by which socionatural networks are ordered' (Castree, 2002: 141), and thereby also maintains the potential for economic analysis and political interventions. As Castree forwards:

> "Splitting a weak version of ANT and a relational version of eco-Marxism yields a political economy approach to socionature that avoids the excesses of the strong modalities of ANT, and the dualism in eco-Marxism." (Castree, 2002: 111)

Amongst the key 'modes of ordering' of socio-natural networks is of course through the contemporary global political economy. The collection of articles in *Violent Environments* (Peluso and Watts, 2001) provides a particularly useful overview of political economy influenced work in political ecology. The contributors to the Peluso and Watts volume take seriously the notion that nature must be given causal efficacy, and build upon ideas of hybrid social-nature formed through actor-networks. Stonich and Vandergeest (2001) for instance argue that the specific biophysical and economic characteristics of shrimp (ecological instability, environmental requirements, price instability, portability) actively shape the social processes (and resulting 'crustacean violence') that form around industrialized shrimp aquaculture. Similarly, in Watts' (2001) account of petro-capitalism and violence in Nigeria and Ecuador, hybrid identities are

formed, even 'invented,' through human interactions within a commodity network. The ideas forwarded in Peluso and Watts (2001) has represented a strong influence to this dissertation, although as outlined I also seek to integrate such approaches to political economy more explicitly with an understanding of the functioning of global resource commodity markets and the investment decisions of specific global firms.

Focusing in upon the global political-economy stream of research, for Watts (2009: 546), early political ecology's actual theoretical engagement with political economy remained under-developed, beyond a broad orientation towards dependency theory.[27] However, a number of 'political ecology/resource geography' oriented scholars have begun to examine more systematically how political-economic power is constituted through nature and natural resources (e.g. Bridge, 2001), and this dissertation aims to build upon such advances. Scholars such as Coronil (1997), Watts (2004a) pay close attention to the role of property rights, enclosure and commodification, surplus extraction, the capture and extraction of resource rents, and the consolidation of state and class power. Patterns of resource degradation are then both a result of, and a continuing source of new social marginalization (Watts, 2009). Differential capital accumulation through environmental and land-based resources structures the local politics of the environment, influencing trajectories of agrarian class formation, and the spatial-territorial consolidation of the state

[27] Peet and Watts (1996: 8) are blunt in their criticism of Blaikie and Brookfield's conception of political economy: "Rather than outlining an explicit theory of production or political economy and an arsenal of middle-level concepts, Blaikie and Brookfield only provide a plurality of disconnected linkages and levels."

(e.g. Hirsch, 1990; Li, 2002b). This has led to some of the more interesting work being done today on the political ecology of Southeast Asia.

Markets and Political Ecology Research in Upland Southeast Asia

Recent and exciting academic work on the political ecology of upland and rural Southeast Asia has foregrounded issues of markets and smallholder production, local agency and responses to commodification processes, and the socio-spatially uneven outcomes of contemporary agrarian change (e.g. Rigg and Nattapoolwat, 2001; Sikor and Pham, 2005). A number of aspects tend to stand out in this work. Scholars start from the position that commodity production in Southeast Asia is not new, and that upland farmers in most parts of the region have long been participants in global markets (Reid, 1988-1993). Second, scholars such as Rigg (2006) have highlighted how for many subsistence-oriented and commercial farmers in Southeast Asia, there is a strong desire (for themselves and particularly their children), to escape from an agricultural livelihood and to participate in (gender-mediated) forms of urban-based modernity.[28] Third, where intensified agricultural commodification has been set into play, some researchers have been reluctant to view this as simply the outcome of the coercive expansion of market relations, that are necessarily opposed by forms of collective resistance (Li, 2002b; Barney, 2004; Cramb 2007; Vandergeest, 2008; Li, 2010). While individual and collective resistance of course occurs in many contexts, in other cases the complex and uneven interaction of global forces, with state power, development actors, and local

[28] See also Mills (2005).

engagements with markets, come to the fore. Research has focused on the pathways and implications of intensified commodification, as opposed to assuming a pre-determined negative social outcome (even though, paradoxically, dispossession may often indeed be the end-result of apparently willing smallholder engagement with boom crops, e.g. Li, 2009: 87; 2010). Along these lines, Li (2002b) calls for a non-economistic, culturally informed approach to studying current market-linked livelihood changes in upland Southeast Asia, in which a strong conception of smallholder agency, in terms of widespread local participation in commodity production, is embedded "…within the context of local histories of landscape, livelihood and government."

While appreciating these arguments, nevertheless there has also been a rapid expansion and deepening of commodification processes due to large-scale resource sector projects in Southeast Asia, that have transformed entire landscapes, and enclosed customary rights for upland communities and local environments (e.g. Barney, 2009). These changes have not occurred through national-scale processes only, but also in relation to the global international economic regime and international commodity markets (e.g. Gellert, 2005; 2007). This issue highlights something of a tension in agrarian studies and political ecology scholarship; regarding the differences and implications between studying agrarian transformations 'from the ground up', or in a more dialectical relation to macro-global processes. My approach in effect seeks to chart a course tacking back and forth between these scales and approaches.

Political Ecology and Neoliberal Environments

In the last decade geographers and political ecologists have also taken up the study of global neoliberalism, neoliberal environments, and 'actually existing neoliberalism' in earnest, with a mass of new publications. Amongst the interesting ways in which geographers have studied neoliberal environments is with respect to how the material properties of resources shape the process, conditions and trajectories of environmental neoliberalism. Polanyi was of course the first to term nature, people/labour, and money as 'fictitious commodities,'[29] a term that was meant to argue that these were not originally produced to *be* commodities, and thus their commodification can only ever be incomplete, partial and contested. Bakker (2005) amongst others has picked up on these ideas to understand the practical limits of the commodification of water resources, and the contradictions introduced when public goods become privatized. Prudham (2003) for instance has also applied the fictitious commodity concept for examining the relationship between sustained yield forestry, economic accumulation and industrial restructuring in North America.

In terms of a theory of the state, neoliberal ideology proposes a retreat of the strong developmental state as an active participant in the economic environment, and its

[29] See Nitzan and Bichler (2009: 86-87) for a critique of the Polanyian concept of labour as a fictitious commodity. Interestingly, they argue that it is not clear that human beings are *not* reproduced and raised in terms of market logics (and not just in contexts of slavery or near-slavery).

withdrawal to that of a regulator of private economic activity. Neoliberalism thus argues for a state that is limited to shaping the underlying social and material conditions of economic life, with respect to market regulation, property rights, and citizenship. Neoliberal ideology also seeks to rework the relationship between the state and subject, incentivizing political institutions and subjects along individualist and 'market rational' lines. Under neoliberalism the logic of competition and an idealized/de-politicized marketplace thus becomes the primary guiding philosophy for the organization of society and for the distribution of all resources in society (Castree, 2008: 143). As Harvey (2005: 72) notes: "Developmental states [such as those in East and Southeast Asia] become consistent with neoliberalization to the degree that they facilitate competition between firms, corporations, and territorial entities and accept the rules of free trade and rely on open export markets."

For geographers of a critical Marxist orientation, neoliberalism as applied to nature, the environment and rural development has become a focus for critique and empirical analysis. A group of scholars including as Bakker, Heynen, McCarthy, Prudham, Swyngedouw, and Mansfield have been at the forefront of this, although their fieldwork has largely been conducted in advanced industrialized countries, where neoliberal reforms have been most deeply applied. Neoliberal policies applied to the realm of the environment include intensified processes of enclosure, commodification, privatization, as well as reforms that are more often viewed as socially progressive, including

decentralization and community-based management (as these involve a roll-back of the centralized state, and are based around the notion of non-state regulation; see e.g. Li, 2007; James McCarthy, 2006).

Castree (2008) reviews the literature on neoliberal environments, and encourages scholars to examine more closely the economic forces and the different fractions of capital that are driving the neoliberalization of nature:

> "If, as suggested earlier, we see neoliberalism as one possible 'shell' for the capitalist mode of production, then this shell offers firms, state bodies, and sympathetic stakeholders a range of 'environmental fixes' to the endemic problem of sustained economic growth." (p. 146).[30]

However, attentive treatments of neoliberalism and political ecology in Global South contexts have faced difficulties in disentangling the concept and reality of neoliberal reform with the 'illiberal' characteristics of most Southeast Asian political regimes (e.g. see Hadiz and Robison, 2005; and Jayasuriya and Rodan, 2007, for political analysis[31]). Forces of neoliberalism in Southeast Asia interact with alternate forms and logics of resource governance, including bureaucratic and donor power, and networks of patronage and rent seeking (e.g. Cock, 2010). In addition, recent global political-economic transformations, involving the rise of China and India, the emergence of powerful

[30] Castree's (2008) typology of neoliberal environmental 'fixes' for problems of economic accumulation include: (i) the extension of markets for environmental services; (ii) a deepening of nature's commodification and privatization; (iii) simple extractive exploitation; and (iv) a roll-back of the state in environmental regulation.

[31] Larner (2003: 511) writes: "Although neoliberalism may have a clear intellectual genesis, it arrives in different places in different ways, articulates with other political projects, takes multiple material forms, and can give rise to unexpected outcomes."

sovereign wealth funds in East Asia and the Middle East seeking 'locked in' access to land and resources, and the emerging debt crisis facing advanced industrialized (or even 'post-industrial') countries, are all suggestive of a new multi-polar geo-political system, through which the coherency and power of a neoliberal 'Washington consensus' is being increasingly challenged. Thus, for Nevins and Peluso (2008: 19) there are complex linkages between global neoliberal policy forces and Southeast Asian state power:

> "The conditions and relationships possible under neoliberalism constrain and reshape the old forms of enclosure and commodity production in new ways. State power remains a critical part of the allocation of property rights explicitly for commodity production."

The debates around neoliberal natures have become extremely complex, particularly in the recent exchanges between Bakker (2009) and Castree (2009), and they cannot all be recapitulated here. Perhaps suffice it to suggest that I find the approach of Brenner, Peck and Theodore (2010), around 'variegated neoliberalism' to be of interest, although I would still suggest that more work needs to be done to differentiate neoliberalism from alternate political economic logics, such as the authoritarian-developmental state, or neo-patrimonialism, in specific nation-state contexts. Unlike Springer (2009) for example, I do not view the Southeast Asian states of Cambodia or Laos as being *predominantly* shaped through the logics of neoliberalism, and nor would I forward that a coherent, overarching 'neoliberal order' exists in these countries. Authoritarianism, neo-patrimonialism and neoliberalism are fundamentally different in their governing logics, and it is ultimately insufficient to claim a simple 'articulation' between these types of political regimes, and to term this as a 'variegated neoliberal order' (see also Kingfisher

and Maskovsky, 2005; Barnett, 2005). Nevertheless, such debates open up a productive field of inquiry, that could investigate the connections between economic geography, commodity studies, and political ecology, and through which global forces such as neoliberalism are "grounded" in relation to national to local power relations in Asia. In addition, local political ecologies and a cultural politics of the environment also become linked into the concerns of materialist and geographical political economy. Working through these ideas of political ecology and political economy in the context of resource-led development in Laos, forms a central concern for this dissertation.

Summary:

A key argument developed in this dissertation is that detailed analysis of the appropriation and distribution of value and rents within industrial global commodity chains and networks can represent a useful addition to the 'classical' fine-grained political ecology studies of property rights, access, and environmental transformation. Such an approach would combine a place-based analysis of livelihoods, identities, and rural production, with the complex dynamics of global capitalism and neoliberalism, as mediated through regimes of state power, and as operationalized through the logics of global commodity chains and global production networks.

The benefits of a closer integration of the concerns of environmental economic geography and GPNs, with the concerns of political ecology, I suggest, include the following:

1. The potential to more closely identify the political-economic logics through which

nature is enrolled into strategies of value creation, accumulation, and circulation under global neoliberalism (Gereffi, *et al*., 2005). For example, this could relate to how nature can operate as an 'environmental fix' for recurrent crises in capitalist accumulation (Castree, 2008).

2. Insights into how resources and resource rents come to play a central role in state development strategies (Coronil, 1997; Tsing, 2004; Gellert, 2010); how 'strategic coupling' operates between firms and states in the realm of resource industries; how the development trajectories and options for peripheral states are shaped and constrained through their engagement with primary commodity markets. Such work can highlight "…the realities of primary commodity export trade as an 'engine' of development" (Bernstein and Campling, 2006b: 442).
3. As Boyd *et al.* (2001) note, there are constraints and obstacles, as well as opportunities and unexpected outcomes, with organizing industrialized production in food, fibre and agricultural sectors. The ways in which extractive industry deals with the material specificities of resource-based production are crucial to understand, as this shapes the social and economic relations around these commodities. The materiality of commodities carries important implications for property relations, and environmental change in local contexts (e.g. Peluso and Watts, 2001; Nevins and Peluso, 2008).
4. The ability to develop connections between the 'chains of explanation' methodology used in political ecology, and meta-scale theories of political-

economic organization. This can be useful for examining how macro-economic relations and commodity systems shape patterns of state territorialization, producing enclosures, and transformations in property, resources, and communities.

5. Incorporating network approaches to the production of socio-spatial relations can help to move away from a conceptual hierarchy of ascending power relations, and challenges uni-directional understandings of 'causality from above' in political ecology (Robbins, 2004). Alternatively, an understanding of the production of socio-nature through both local political ecologies and broader scale forces of commodification, highlights that even local communities and landscapes are also the outcomes of multi-scaled socio-political relations (Moore, 2005).
6. Political ecologists have provided exceptional insights into how commodity relations become involved in actual political struggles, over landscape, livelihoods, and identities. Political ecologists' engagement with grounded, long – term, place-based research is indispensible for locating how more abstract forces of commodification and political economy are realized in concrete geographical and historical junctures.

Political ecology thus offers a 'place-based' approach to understanding development trajectories, and the interconnections between people and ecologies that can be missed through the ontologies of chains and networks. Building on Coe *et al*.'s (2004) concept of

GPNs and 'strategic coupling' could offer one way out of this impasse, between place-based ecological, social, and territorial processes, and those of firm-based commodity actor-networks.

Integrating political ecology approaches with commodity studies and global production networks provides an opportunity to invigorate perspectives on contemporary ecological transformations and environmental politics, while also opening a window into how nature and resources become involved in the production of space, territory and global connectivity. Understanding the embedded economic and institutional logics of the plantation and pulp industry commodity network, and locating how these forces articulates with state power and ecological processes, better underscores the economic relations of exploitation and rent capture. This approach also reveals the dynamic flexibilities of neoliberal capitalism, its creative capacity to produce novel social-environmental configurations and unexpected political ecological trajectories.

A "political ecology of global production networks" approach can also be conceived as involving three key scales of analysis: a) an informed attention to the economic structuring of the forestry and paper sector global production networks, including neoliberal forms of corporate control and resource governance (e.g. Bair, 2005; Heynan *et al*. 2007); b) an analysis of the political systems and modes of authoritarian-clientelist control in Southeast Asian forestry development (e.g. Dauvergne, 1997; Ross, 2001a);

and c) a relational, networked political ecological analysis of resource tenure, rural development and socio-environmental change (Rocheleau and Roth, 2007; Rocheleau, 2008). Together this triangular approach may provide a powerful explanatory framework for understanding contemporary industrial forestry and agrarian transitions in Southeast Asia. I will employ these scales of analysis in the following chapters.

2.3 The Creation of Governable Spaces and Subjectivities of Development

The previous two sections of this chapter introduced the concepts of global production networks and political ecology, and argued for the advantages of combining their respective insights for examining questions of resource-based uneven development and environmental transformation. We now turn to the third key theoretical framework that I use in this dissertation, that of studies of governmentality and forms of rule in the making of modern spaces, environments, and subjectivities of development. Here I briefly explain these concepts, and point to how the concept of governmentality can be applied in understanding the new political ecologies, territories and subjectivities of development emerging in rural Laos.

I start from the idea that patterns of accumulation through dispossession, agrarian transition, and the exercise of social power in Laos are not simple derivatives of previous historical experiences in Europe (Chakrabarty, 2000; see also e.g. Coronil, 1997; Goswami, 2004). While there are commonalities and connections across regions (including histories of colonialism and market relations), there are also important

specificities in different Asian political-historical contexts that make different agrarian transitions unique to their time and place. This calls for place-based research, and ethnographic analysis.

In any agrarian Global South context, capitalist primitive accumulation and enclosure, involving the nexus between global commodity networks and state power, does not only occur through relatively straight-forward processes of political repression backed by violence. There is almost always something more complex occurring, in terms of how development interventions are justified, and the strategies through which capital accumulation and state power takes root. Many extractive development projects and state policies in authoritarian-paternalist states of Southeast Asia involve interventions that extend beyond what Tania Li (2003: 5210), drawing upon Foucault, calls 'sovereign rule by command.' Nor do these strategies of power and accumulation rely only upon modes of surveillance and self-disciplining, although this can also represent a component of political power in particular circumstances (e.g. as with 'total' institutions such as the factory or the plantation) (Stoler, 1985; Ong, 1987; Foucault, 1977). Rather (or more specifically, as an unstable combination), rule through 'governmental power' involves the deployment of ostensibly more productive logics of social control, that instead of relying upon direct force, repression, or disciplining, seek to influence the underlying mode of conduct of a population, as well the relations between social organization and space.

In contemporary advanced liberal democracies, political power through governmentality is linked to the promotion of individual-optimizing logics of development, involving the retreat of the state (with a corresponding rise of 'community'), and the spread and deepening of market-based social and political relations. This is the characteristic signature of neoliberal governmentality (Dean, 1999; Rose, 1999; Hart, 2004). Alternatively, in Southeast Asian states, neoliberalism typically takes on hues of political authoritarianism (Harvey, 2005), as well as becoming inflected with the logics of clientelism, and state paternalism (e.g. Hadiz and Robison, 2005). Thus, forms of governmentality in Southeast Asian states often involve novel experimentations in the relationship between rulers, territories, and subjects (see Dean, 1999:131-148, on authoritarian or non-liberal governmentality— i.e. the use of political repression or sovereign power, in combination with a biopolitics of population). In Laos, I forward that governmental projects hinge upon attempts to promote 'modernized' communities and subjects, and landscapes optimized for transnational extractive industry. In the terminology of Rose (1999: 31-34) these can be called 'governable' subjects and spaces (see also Watts, 2003; 2004b). Importantly, rule through governmental power is typically defined by incomplete, unevenly enacted, or even contradictory projects (Li, 1999), and such deployments of power can be challenged by populations (and indeed non-human ecologies) with the capability to resist, or to function in unpredictable ways.

The focus for scholars of governmentality is therefore upon excavating and deconstructing the strategies, knowledges, and techniques of power, its truth regimes and technologies, as opposed to attempts to derive an essentialist understanding of power in terms of comprehensive theories of the state or political economy. Governmentality as a concept forwards an understanding of the conduct of rule as an open-ended *process*, in which power is decentered (Allen, 2003), and mediated through diverging institutions. Governmental interventions thus involve material-discursive, and planned as well as unexpected reconfigurations of landscapes, livelihoods and identities (Li, 2007). Research has focused upon governmental power as operating through race and the institutions of colonialism (e.g. Stoler, 2002), through political economy (Mitchell, 2002), and through science and green environmentalism (Goldman, 2005). As governmentality is understood as a historically continuous process, studies can be usefully grounded and operationalized through the research tools of historical genealogy (e.g. Peluso and Vandergeest, 2001) and local ethnography (see Agrawal, 2005, on the normalization of environmental subjectivities in northern India).

Others have linked these Foucaultian approaches to governmentality to the ideas of theorist Antonio Gramsci, as a way of understanding how non-state social coalitions can form into a politics of resistance and political contestation (e.g. Moore, 2005).[32] For Moore, de-centering an analysis of power from the structures of the state and capital

[32] For other approaches to social contestation, see also Polanyi (1944), on societal counter-movements to *laissez-faire* market liberalism; and Scott (1985), on everyday political resistance.

opens up the potential to show how political subjects are themselves constituted, and at different political moments, how subjects can both participate in the projects of their own rule, and challenge regimes of rule. Similarly, in a study of upland Sulawesi, Li (2007) employs the tools of governmentality to focus upon the linkages between formations of capital, the state, community, and identity structures, to examine situated struggles over land, capital and agrarian change.

Both Foucault and Gramsci cover some similar ground in their approach to questions of political power. Both placed emphasis on dispersed as opposed to direct forms of rule; both emphasized every day modalities of power as opposed to overarching structures; and both focused upon material as well as discursive arrangements of power (e.g. Ekers and Loftus, 2008). However, Gramsci focused upon the complex unity of coercion and consent in the maintaining of a *class-based* system of rule, and how power attained ideological, hegemonic form in the consciousness of citizens in part through the control of the state-civil society nexus (his interest was upon explaining the rise and consolidation of public support for fascism in Mussolini's Italy). Notably, for Gramsci hegemony was always unstable, consent was provisional, and accompanied by the potential for social resistance.

For Foucault, the emphasis is upon the management of populations through the instruments of government, including surveillance, discipline, and the creation of regimes

of power/knowledge. Foucault forwarded a more mechanistic understanding of power which is formed through bureaucratic control upon the subject and the architecture of society. It is important to distinguish Foucault's approach to disciplinary power, which ultimately operates through the potential for threat and violence; as opposed to pastoral power, which operates through the consciousness of subjects in a way whereby subjects more explicitly begin to 'rule themselves' (Bevir, 1999: 354). In some ways there is an overlap between these conceptions of surveillance and self-regulation (as with total institutions of the state, prisons, schools and so forth). In other areas of social life, outside of such institutions, and where forms of monitoring and surveillance are less intense, self-regulation takes precedence.

Biopower and governmentality are linked to a material arrangement or disposition of society, which articulates with capitalism. But governmental power was not understood by Foucault as reducible to a historical materialism of capitalism (Ekers and Loftus, 2008). The notion of consent or the possibility of the resistance of the subject is also by general assessment, underdeveloped in Foucault's analysis. Rather, the emphasis for Foucault was upon how power works *through* the agency of subjects, and how power operates not just as a negation of the subject, but in a productive sensibility (Ekers and Loftus, 2008: 709): "…encouraging conduct and forms of self-discipline that targets improvements in welfare and security " (Moore, 2005:6). A useful summary of Foucault's approach can thus be found in the following statement: "My problem is to see how men

govern (themselves and others) by the production of truth." (cited in Ekers and Loftus, 2008).

Any attempt to combine these elements of Marx, Foucault and Gramsci into an explanation of the operation of power in a particular social context, tacking between hegemony to governmentality, needs to be done carefully, without naively mutating what these theorists were actually proposing (see Barnett, 2005 for a critique; and Jessop, 2007 for an interpretation of Foucault alongside Marx). Moore (2005) and Li (2007) provide two excellent examples of such work.

Connecting to Governmentality to Political Economy, Territory, and Nature

Studies of governmentality in agrarian Global South contexts have moved to incorporate the study of nature, territoriality and political economy. As mentioned, a key tradition in research in political ecology has critically examined the historical re-scaling of property and access rights to lands and forests, from local to national or international actors (e.g. Peluso and Vandergeest, 2001; Sivaramakrishnan, 2003; Cleary, 2005). In this way nature and resources also became more 'legible' (Scott, 1998) in the optic of the state, or more generally, become more 'governable spaces' [conceived as the territorialisation of governmental thought, by Rose (1999: 34-46); see also Watts, 2003, 2004a, 2004b]. For example scholars such as Goswami (2004) and Moore (2005: 5-7) explicitly draw upon Lefebvre (1974,1991) to understand space and territory not as the template upon which governmental programs are enacted. Instead space becomes simultaneously a field of

action, and a *basis* through which state power is operationalised: "…governmental projects work, in part, through the production and regulation of landscapes of rule… formations of power become grounded through historically and spatially sedimented practices." (Moore, 2005: 6). The same arguments can be made about how nature is not an inert materiality, but rather becomes an 'actor' in development, and how society and the environment are both situated, and re-produced, through governmental programming (Rutherford, 2007)

This attention to how territory, nature, and landscape is produced through geometries of political power, also opens up the potential for a more robust conceptual framework to interpret the establishment of different human political subjectivities. The key point, as Allen (2003) reminds, us, is not simply to show that there is a spatial or territorial component to political power, but rather that power, as a relational effect, also operates spatially. 'Grounding' governmentality, through ethnographic analysis of local livelihoods, identities, and environmental practices, then also becomes important in order to understand the ways in which "culture becomes a critical terrain of political struggle" (Moore, 2005: 9; see also Hart, 2004). Such an approach provides a key set of insights into how the state itself comes to be formed in part through multiple projects of territorial control, through differential modes of political authority and sovereignty (p. 7). As Goldman (2001: 500) drawing upon the Lao context, convincingly argues, the creation of

new territories and environments, new authorities, new rights and new scientific truth regimes, produces a fragmented, stratified and unevenly transnationalized state regime.

However, (and this is where some scholars of governmentality arguably falter), the coherence of neoliberal governmental programmes— as for example, forwarded by development banks and donor agencies— are often fractured, through interactions with established hierarchies of the state, and competing logics of sovereign or disciplinary power, including authoritarian power, patron-clientelism or neo-patrimonial governance patterns.[33] As governmental projects become mediated through multiple state institutions, and local realities, the results of governmental programming cannot be taken for granted. Understanding these relationships as they work upon the making of governable spaces and subjects, requires place-based empirical study, it cannot be read off from bureaucratic reports. My approach thus follows Li (2007: 27), in seeking to re-link studies of governmentality with 'sociologies of rule'— combining an understanding of the progammer's view of governmental interventions, with grounded research on its uneven effects (see also Rutherford, 2007).

Moreover, as Rose (1999: 33) argues, projects of establishing governable spaces do not operate in some external sense from the meta-forces of political economy. In a

[33] Li (2003: 5120) writes: "The interweaving of the logics of profit seeking, sovereignty, and governmental rationality creates a complex field of power. State patronage is key to gaining access to resources for private profit, and governmental projects described as improvement are always tainted with the suspicion that they are masks for elite gain."

characteristic Foucauldian move, Rose does not take the 'economy' as a self evident thing in itself: "…before one can seek to manage a domain such as an economy it is first necessary to conceptualize a set of bounded processes and relations as an economy which is amenable to management" (see also Mitchell, 2002). However, some researchers using the governmentality framework have arguably underplayed the crucial role of economic production (e.g. Agrawal, 2005). Here I draw upon Watts (2003), who writes of the ragged (un)governable spaces in oil-rich coastal Nigeria, and of how these spaces are generated by forms of authoritarian governmentality acting upon community identities, in combination with what he calls 'petro-capitalism' (a strategic resource or political commodity linked to a dominant economic logic of extraction). Thus, an analysis of governmentality and governable spaces in the resources sector also means examining the historical development of state power, the political economy that forms around particular political-strategic commodities, and the attempts (including partial or *failed* attempts) to establish different forms of governable spaces, environments, and communities.

Close examination of this rectangular relationship, between governmentality, political economy/commodities, territoriality/nature, and political subjects/identities, forms the basis for my final empirical chapter. Here, I seek to understand the real terms of 'concession politics'[34] in a resource-dependent village in central Laos. My basic argument is that the creation of a national resource –based economy in Laos hinges upon co-

[34] See Hardin (2002) on 'concessionary politics' in Africa.

existent projects of rationalizing and territorializing national space (Vandergeest and Peluso, 1995; Mitchell, 2002; Goswami, 2004). New state strategies of nature-based economic accumulation (Coronil, 1997), new identities and political subjectivities of development, new ecological transformations, and new territorial modalities of state power in Laos, are being established *through* resource concessions, and via the activities of trans-national actors (see also Ferguson, 2005, 2006; MacLean, 2008). This suggests that new 'mosaics of territorial control' (Hardin, 2002), and new modes of authority and political sovereignty, are becoming linked into the establishment of a Lao developmental state.

Governable Spaces, Subjects, and Sovereignty in an Era of Globalization

In the phrasing of Lefebvre, "the State and territory interact in such a way that they can be said to be mutually constitutive" (cited in Brenner and Elden, 2009: 362). While "… each mode of production has its own particular space, the shift from one mode of production to another must entail the production of a new space" (Lefebvre, 1974/1991: 47). In Laos, I will argue that resource developments are being founded upon the notion that it is not simply particular state spaces that are ceded to companies through concession deals. In important ways, due in part to the historical-institutional limitations of the Lao state in exerting power over their internal periphery, concessions also cede to developers key aspects of governing control over dependent populations as well. I do not see this as a simple process of enclave-based privatized sovereignty (Ferguson, 2005, 2006) or as a direct form of graduated sovereignty in which the state is reduced to a neoliberal regulator

(Ong, 2000). While the ways in which Ong (2000) writes of the uneven spaces of dispersed sovereignty is highly suggestive of the dynamic remaking of the Lao countryside through uneven trans-nationalization[35], the general weakness of the Lao state as compared with, for example, Malaysia, means that Ong's ideas are not completely generalizable across the Southeast Asian region. In my reading, Ong and Ferguson present rather binary notions of the relative power between states and capital over space, and moreover, do not recognize the more active sense of the role played by communities, nature, and indeed territory itself in shaping new power configurations. Rather the key mode of concessionary politics I shall consider is how the Lao government uses external resource capital to establish more complete territorial and population controls, that are founded upon combinations of sovereign power and resource capital, and in some cases, infused with new transnational ideologies of 'green governmentality' (Goldman, 2001, 2005). As Sassen (2008: 63) writes: "These emergent assemblages begin to unbundle the traditional territoriality of the national historically constructed overwhelmingly as a national unitary spatiotemporal domain."

Such forms of governmental power are not completely new; indeed there is a significant tradition of research on the colonial plantation, as a territorial configuration, and as a disciplinary institution, which was founded upon colonial modalities of race, nature and

[35] Ong (2000: 72) writes: "In less powerful regions of the world, we find that the nature of state sovereignty must be rethought as a set of coexisting strategies of government within a single national space. There is discipline in the Foucauldian sense, there is labor discipline in the old sense; there are zones of corporatist power and zones of special production; there are 'brown' spots of neglect and heavily militarized sites of insurgency."

governmentality (see e.g. Stoler, 1985, 2002). In addition, contemporary governmental projects do not operate solely through the state (and indeed governmentality as an approach seeks to decisively de-center the state as a unitary actor, Hart, 2004). New forms of transnational or market-based environmental regulation, and different non-state actors (companies, NGOs, regulators), also become closely involved [see Loconto and Busch, (2010), on the rise of private regulatory standards, and 'security through markets']. But neoliberal forms of governmentality in particular are based less upon the systems of surveillance and direct management discipline that formed the basic social control technologies of the colonial plantation. The interventions I will examine are based upon strategic intercessions by global resource developers and state partners, to shape the underlying territorial configurations, and the system of socio-economic incentives, so that local peasant/subsistence oriented producers will find it in their own interests to move into market-based, commercialized production, and to cultivate self-sustaining entrepreneurial identities. These governmental strategies are combined with programmes of sovereign-authoritarian and disciplinary power. To examine these unpredictable processes, and to appreciate their incomplete and contested enactment and their contradictions, it is useful to peel back the historically layered production of "landscape, livelihood, and identity", and to examine the linkages between power, identities, and the production of space in particular localities (Li, 2003; Moore, 2005).

Chapter 6 draws upon the themes of governable spaces and subjects to analyze in more detail the terrain of contemporary concession politics in Laos. I examine how these projects of rule are never completely realized, how they are refracted through Lao institutions and history, and indeed how they sometimes miss their mark. In addition, such projects of rule do not create totalizing identity structures— rural farmers in Laos are shown as creatively remaking their livelihoods, identities and communities outside of the terms of the resource-development project. The interest and intent in Chapter 6 is to situate these community responses and ecological transformations in relation to the dominant logics of contemporary government, which combines rule by sovereign/authoritarian power; rule by primitive accumulation; and rule by 'productive' disciplining.

2.4 Conclusion

This chapter has introduced and explored the three key theoretical approaches: (i) global production networks in economic geography, (ii) political ecology and social-nature, and (iii) governmentality and the creation of governable spaces and identities. I have discussed how each of these approaches opens up distinct means or windows through which to understand rural transitions in Laos—through economic production networks; through hybrid socio-natural transformations, enclosure, and political struggles over access to resources; and through alternative understandings of government-developmental power. The overall thematic objective of this project is to develop a *critical economic geography and political ecology of the production of resource landscapes, and an*

ethnographic analysis of the creation of governable spaces and 'productive' or modern communities in Lao PDR.

While this chapter has emphasized my conceptual orientations, we will now 'advance to the concrete' (Hart, 2006), through detailed investigation and using different scales of analysis, to understanding the multiple geographical, economic and historical inter-connections involved in the remaking of Laos and Lao communities through commodity power and resource-based development.

Chapter 3: Global Production Networks and the East Asian Forestry and Paper Sector

3.0 Introduction

The integrated forestry and paper sector of Southeast and East Asia represents a major industrial-political complex, of inter-connected biological, socio-economic, and discursive processes. My aim in this chapter is to selectively outline the industrial characteristics of the plantation forestry and paper sector, and to conceptualize its spatial restructuring in Asia, through the geographical literature on global production networks. The argument I present is that a GPN analytical framework (Dicken et al., 2001; Henderson et al., 2002; Bair, 2005; Hess and Yeung, 2006, Yeung, 2009), can shed useful light upon the political-economic organization and spatial dynamics of nature-based industries, and inform our understanding of how firms within this sector become oriented towards an intensive commodification of nature, and the capture of resource rents (e.g. Dauvergne, 1997; Barr, 1998; Brown, 1999). Imperatives of expansion and capital accumulation, which can also be linked to the 'nature' or properties of the resource itself (Boyd *et al*., 2001; Le Billon, 2002; Bakker and Bridge, 2006; Bridge, 2008a)[36], play a part in constraining and enabling the competitive strategies available to private sector actors, and influence the terms of political engagement between the industry, public sector agencies, and local communities.

[36] See Watts (2004), for a critique of a simplified 'resource curse' hypotheses.

Second, the GPN approach highlights aspects of inter-firm competition, firm-state relations and the connections of commodity networks with space, and territoriality. This can provide a better understanding of the economic and institutional drivers of nature's commodification. It opens up questions concerning how firms compete amongst their sectoral rivals, why resource firms make investment decisions in some regions and countries instead of in others, and how state governments in turn seek to attract resource companies to make these investments (Coe et al., 2004: 476). This chapter shows how the adoption of an economic understanding of strategic decision-making processes in one specific resource sector, as located within a very *political* economy in Southeast Asia (Gellert, 2003: 79, Yates, 1996) can be a useful analytical move. 'Seeing like a pulp company' (see Ferguson, 2005) can help to locate the system of economic incentives that shape the field of corporate actors, while highlighting the involvement of state governments in affecting company expansion and accumulation strategies.

As the chapter proceeds, I incorporate an analysis of the institutional and systemic political-economic forces which shape the functioning of forestry, pulp and paper commodity chains, and which affect firm profitability (Bair, 2005: 154). This attention to the technical, organizational and institutional logics of how firms operate within the modern forestry and paper industry will establish with more clarity the multiple and shifting control points of 'commodity power.' I aim to illuminate the system of incentives that channels individual and institutional actions, and that shapes the reproduction of what Bair (2005: 156) calls a "stratified and hierarchical world system."

I am specifically interested in Coe *et al.*'s (2004: 469) framing of the interaction between global firms and nation-states in resource sector GPNs through the concept of 'strategic coupling.' For developing countries such as Laos, 'regional specific assets' include areas of degraded forest-lands or other natural endowments such as ore deposits or rivers, which can be enframed and commodified through industrial resource development. In turn, I show how the strategic requirements of the focal firms in this study involves sustained, low cost access to plantation wood fibre supplies. The ways in which state governments succeed or fail in attracting resource-based capital investment, in generating value, resource wealth and in promoting national development, is understood as closely coupled with the demand side—with the requirements of trans-national firms operating through global production networks.

For forestry and paper firms, the underlying logic of pulpwood plantation development is ultimately expressed not in terms of personal greed,[37] or the manipulation of political arrangements to enact enclosures, log out natural forests, or to displace peasants (although these are indeed strategies used by many industry actors in Asia). If the major concern of the plantation operators I interviewed could be summed up, it might be expressed in terms of *delivered wood costs;* the price of a volume of logs or woodchips calculated at a factory gate or at a container port terminal (e.g. FOB- the 'free on board' price). In analyzing the political ecology of pulp, much can be learned from beginning one's

[37] See Michael Lewis (2008) on the most recent financial crisis: "He thought the cause of the financial crisis was 'simple. Greed on both sides—greed of investors and the greed of the bankers.' I thought it was more complicated. Greed on Wall Street was a given—almost an obligation. The problem was the system of incentives that channeled the greed."

analysis from what pulp companies are primarily responsive to— the competitively-determined delivered cost of producing the commodity— and then working back through the network, focusing in upon the geographical, political, and socio-ecological arrangements and power relations which makes this material economic production possible (Gereffi and Korzeniewicz, 1994).[38]

Yet, the material relations of production in economic geography, and the making of economic space, cannot be separated from narratives or discursive representatives (Barnes, 1996; Coe, Kelly and Yeung, 2007). Attention to representations of socio-economic space can provide insights into how a particular set of economic and material relations are legitimized, sustained and normalized (e.g. Braun, 2002; Bridge, 2001, 2004). While this chapter is not centered upon a deconstruction of dominant or counter-narratives of primary commodity production, the issue is fully recognized, and integrated into the chapter at various points.

I begin the next section by explaining the broad characteristics of the plantation and pulpwood sector, both on a global basis and in Asia, outlining how economic restructuring in the industry is proceeding. Second, I develop in more detail the dynamics of regional expansion in Southeast Asia, paying attention to issues of inter-firm competition, and making linkages to the profitable China market as a significant regional driver of industry expansion. I show how new, large-scale pulp production facilities in

[38] Delivered wood cost is an important, but by no means the only economic logic at work in this sector however, as will be explained in this chapter.

coastal China, involving global firms, are raising the profile of Southeast Asia— including Laos— as a competitive plantation forestry supply zone. I use the example of Oji Paper's fast growing plantation investment in Laos as a case study in GPN 'strategic coupling', between a global firm and a national government holding land-based assets. I conclude with a discussion of how a GPN framework provides a number of advantages for understanding how nature-based commodity networks become territorialized, how the material form of a resource introduces particular social, ecological and political-economic dynamics around its commodification, and how competitive inter-firm and firm-state relations affect processes of industry expansion, 'strategic coupling', and regional development.

I present this material with an eye for the dramatic social and environmental transformations that are produced as a result of this industry. This vast assemblage of produced and consumed commodities represent the very material sinews through which contemporary global economy is produced (Watts, 1999). We take the forestry and pulpwood industry as our commodity 'slice' of this economic pie, as a way to examine globalization in more detail.

3.1 Global Production Networks in the 'Fast Growth High Yield' Plantation Sector: Structures, Actors, and Logics

The global pulpwood and paper industry is perhaps a classic example of a 'non-strategic' commodity sector. Unlike for petroleum or water, wood pulp would not be classified as a

geopolitically significant commodity (see Gellert, 2003).[39] Few state governments would consider launching an inter-state conflict over the control of wood pulp.[40] Yet in the forestry and paper sector, manufactured stocks and flows of raw materials, finance and investment, and the industry's associated social-natural transformations, are all regionally or globally significant. According to the IIED (2004), the paper industry accounts for approximately 2.5 per cent of world industrial production, and 2 per cent of total world trade. Global trade flows in forestry products, including pulp and paper, were in the range of US$186 billion in 2004 (Seneca Creek Associates & Wood Resources International, 2004: 19).

As shown in Figure 1, in terms of the broad geography of the forestry and paper sector, the major production centers of the paper industry are located in the northern 'core' zones of the global economy (Bingham, 2007). Notable however is the role of South America and Southeast Asia as proportionally significant sources of 'market' pulp (i.e. pulp which is traded and sold on the global market, outside of an integrated firm).

[39] Given the suggested convergence between agriculture, forestry and biofuel markets, the emerging competition over arable land in tropical countries, the potential for cellulosic ethanol, and the role of deforestation and forest degradation in global climate change, a case could certainly be made for adopting a more 'strategic' perspective on forests and forest products. See Globe and Mail (2009a): "Wood is very quickly becoming a very important part of the energy mix and in a few years will be a global commodity much like oil."

[40] Although severe human rights abuses and violent conflict have certainly been linked to extractive forestry and industrial plantation resource development. See for example Peluso and Harwell (2001), Harwell (2003), Peluso (2008), and van Klinken (2008) on Indonesia; Noam (2006) on China-Burma; Le Billon (2002) on Cambodia; and ARD (n.d.) for a series of studies on conflict timber in Asia and Africa.

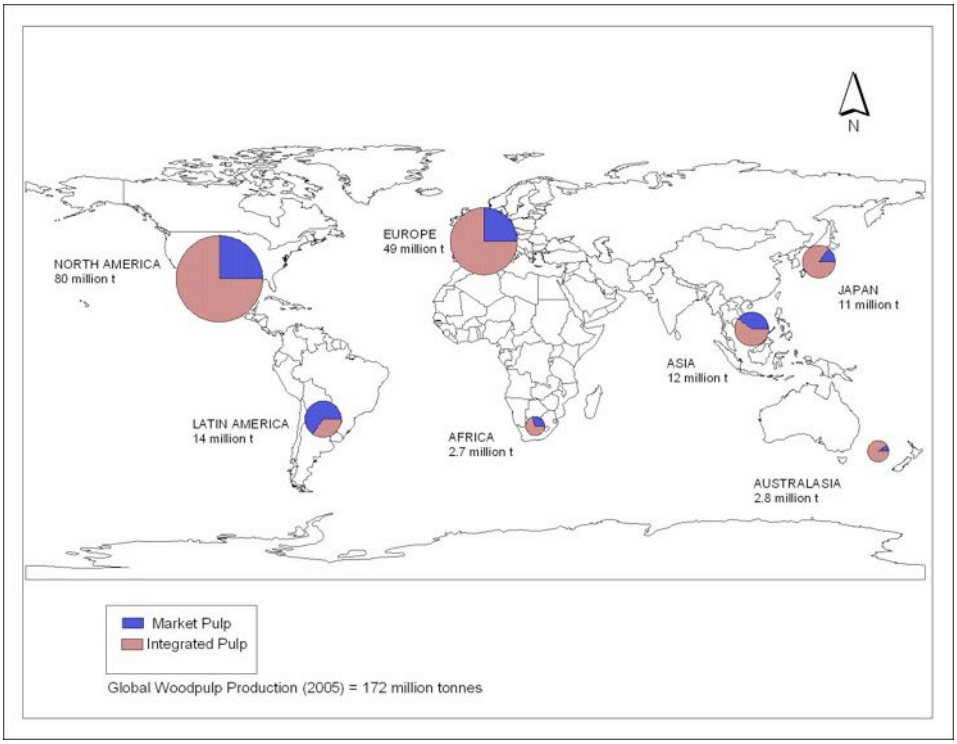

Figure 1: Global Production of Integrated and Market Pulp by Volume. Total 2005 production of integrated and market pulp: 172 million tonnes. Source: Adapted from Bingham (2007).

The data for the extent of market woodchip and pulp flows reveals a globally integrated commodity network, which links firms, countries and continents (Figure 2). In 2010 the global woodchip trade alone involved volumes of 80 million tons, valued at almost ten billion US dollars. A disparate group of approximately seventy-five firms, located in thirty countries, control the majority of the production and trade of integrated and market pulp (Bingham, 2007).[41] The relative intensity of trans-continental trade flows in market

[41] Compared to other key global industries, this represents a high degree of fragmentation. For example, in the petroleum industry, the top ten firms control 40 per cent of global production, (Bridge, 2008: 398; UNCTAD, 2007), while the global automobile industry is controlled by some 20 companies (Spek, 2006).

pulp is also high. On continental terms, as Lang (2008) notes, the production and consumption of wood pulp commodities is in relative balance,[42] although this can obscure sharper disparities between production and consumption at national and sub-national scales.

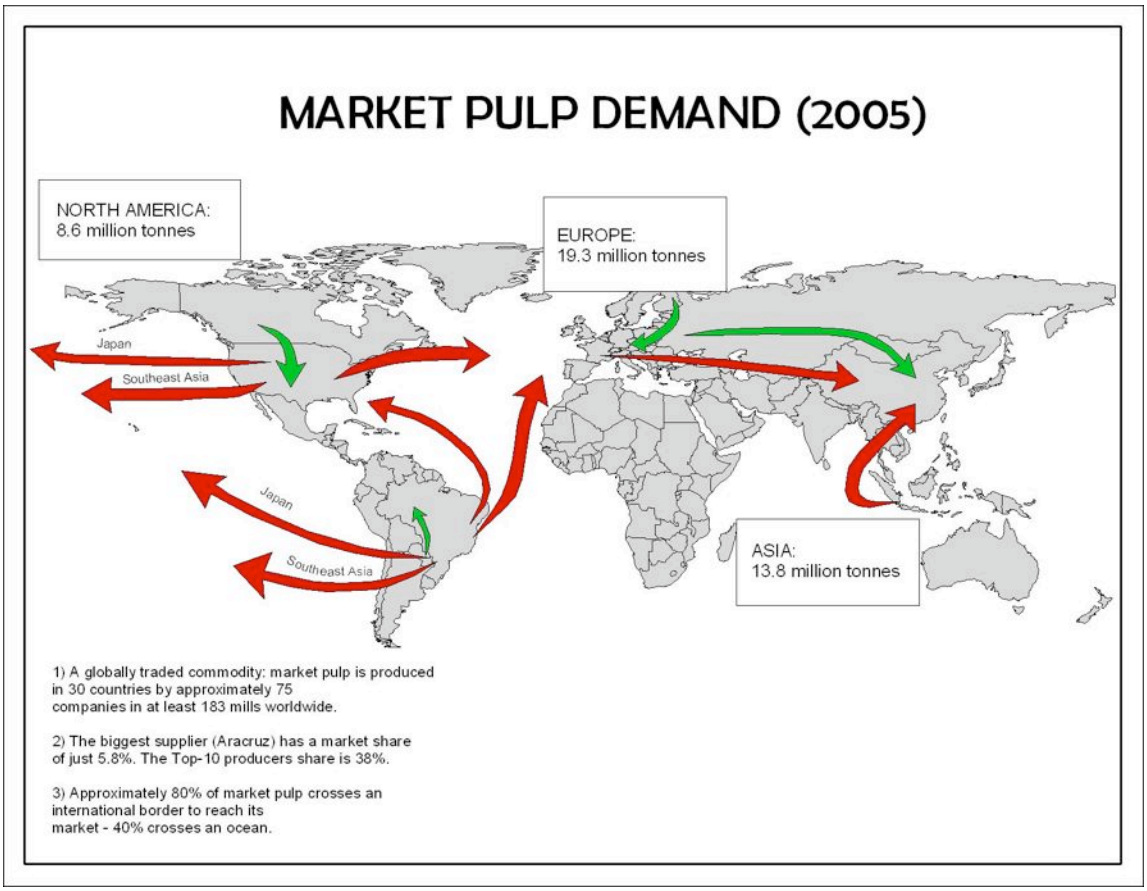

Figure 2: Global Flows of Market Pulp in 2005 by Volume. (Green arrows indicate shipments that cross an international land boundary; red arrows indicate shipments by ocean freight) (Source: Adapted from Bingham, 2007).

[42] "Just over one-quarter of world pulp production takes place in Europe. North America produces 42 per cent, Asia 21 per cent, Latin America 8 per cent and the rest of the world 3 per cent. Global pulp consumption approximately reflects the production figures: Europe consumes 29 per cent, North America 36 per cent, Asia 28 per cent, Latin America 5 per cent and the rest of the world 2 per cent" (Lang, 2008: 17).

Narrowing to an East Asian perspective, the major centers of pulp and paper consumption are Japan and China. The production of pulp is dominated by Indonesia, Japan, and China, and key regional corporate players in the forestry and paper industry include Oji Paper and Nippon Paper (Japan); Asia Pulp and Paper and Asia-Pacific Resources International Ltd. (Indonesia); Nine Dragons, Lee and Mann Paper, and Asia Pulp and Paper China (China); and to a lesser extent, Advance Agro and Siam Pulp and Paper (Thailand). A number of major Western pulp and paper multinationals have also made entrances into East Asia, and European firms have generally been ahead of North America in this regard. Indeed, North American (and especially Canadian) forestry firms appear to have been slow to recognize the importance of the Chinese and Latin American market for their growth opportunities. The wood fibre sources to supply pulp mills in East and Southeast Asia are in turn drawn from global sources, especially from Canada, Russia and New Zealand (for softwood, long fibre pulp) and Brazil and Indonesia (for hardwood, short fibre pulp) (He and Barr, 2004). For Chinese producers, a particularly important source of wood fibre is the global recycled paper market. In 2003, approximately 47 % of China's total fibre consumption was derived from recovered paper, with half of this sourced from imports (He and Barr, 2004: 262). This situation is changing however, as China reaches the limits on the global availability of recycled paper, and with the

emergence of modern large-scale pulp mills in China that require more virgin pulp.[43]

In terms of overall industrial structure, the largest global forest, paper and packaging companies are major economic actors. The top 100 firms in this industry generated approximately $357 billion in revenues in 2008 (PWC, 2009). If pulp and paper were a country, in economic activity it would be equivalent to the GDP of such mid-tier industrialized nations as Iran or Taiwan. In 2008, the top ten (reporting) firms were domiciled in the US, Sweden, Finland, Japan, Ireland, and UK/South Africa (PWC, 2009).[44] For the past ten years however, two regions in particular— 'emerging Asia' (i.e. non-Japan Asia), and Latin America— have represented the key global growth poles and sources of industry profitability. Companies domiciled in ex-Japan Asia and Latin America have produced amongst the highest figures for 'return on capital employed' (ROCE)— a key profitability indicator used by industry analysts (PWC, 2008a; CIBC World Markets, 2005: 6).[45] Indeed, these geographical shifts in the profitability of pulp production are having a direct impact on patterns of global investment and greenfield and brownfield expansion.[46] Barnden (2007) for instance forecasts that by 2011, of the global

[43] There are a limited number of times which paper can be recycled before the fibers begin to break down. This is particularly an issue with high quality printing and writing paper. Depending on the grade of paper, virgin wood fibre of various proportions thus needs to be continually added into the production process.
[44] Indonesia's APP and APRIL tend not to report their annual results to industry surveys, although they would likely be represented within the top 10 global players.
[45] CIBC World Markets (2005:4) shows a linear, positive relationship between ROCE and company share price performance in the global pulp and paper sector. Analysis of ROCE by region between 1998-2003 shows Latin America and South Africa leading (7.0%), with non-Japan Asia second at 6.7%. Of the regions surveyed, companies based in Japan were the least profitable performers, generating a 1.7% average return (ibid. p. 6).
[46] Greenfield expansion involves investment into an entirely new production facility, whereas brownfield expansion involves additional investments or upgrades to an existing facility.

top ten market pulp producers, five firms will be based in South America (compared with two at the end of 2006). Lang (2008: 146) meanwhile cites forecasts that Brazil will become the world leader in pulp production by 2012.

Such regional data however tends to mask the extent to which many of the top forestry and paper companies have 'gone global' in their operations, embarking upon mergers and acquisitions, and becoming increasingly multi-national in scope and character. The leading European pulp and paper firms have proposals for investments into the Chinese market, including Stora-Enso (Sweden-Finland) and UPM Kymmene (Finland), while the top Asian-domiciled pulp and paper firms (APP, APRIL, and Oji Paper) each have China–based pulp capacity expansions either underway or completed. US-based International Paper has also entered into a manufacturing platform in China in recent years.

While a full analysis of the economic aspects of pulp mill production and investment is clearly beyond the scope of this dissertation, it is possible distil a set of key insights into the structuring of pulp commodity networks in East and Southeast Asia, through field research and interviews, and by selectively drawing upon the available work of key industry sector observers and analysts. Understanding a series of critical, overarching 'sector rationalities' can assist with developing a GPN analytical framework.

3.2 Traditional versus Emerging Structures of Forestry and Paper Industry Production

The key nodes in a traditional pulp and paper commodity chain include: the characteristics of the plantation land and the tree resources (based upon genetic hybrids of seedlings for planting material); regimes of plantation, environmental, and labour management; transportation linkages to the factory-gate; sites of low capital intensive wood processing (chip mills, sawmills, post-sawmill processing); nodes of highly capital intensive processing (pulp and paper mills); distribution, retail and consumption of pulp and paper products. There are also offshoots of energy production and recycled paper materials that can be sold as new commodities and/or streamed back into the global wood fibre market.

As PriceWaterhouseCoopers (2007: 8) notes, in the traditional pulp and paper value chain that dominated industrial structuring up to the 1990s, companies aimed to become regionally dominant and vertically integrated. The primary focus was upon maximizing value and generating profits at all nodes in the production chain, from the management of forest-lands all the way to end-product distribution. In Gereffi's (1996) terms, this traditional arrangement could be considered as a vertically integrated, producer-driven commodity chain, where very large buyers (pulp mills) would manage their own forest-lands, or exert strong control over multiple subsidiary supplying firms. In places such as Thailand and Vietnam, pulp industry supplier sources include thousands of smallholder or medium scale contract farming arrangements. In Indonesia, pulpwood supplies were typically sourced directly through large concessions (long-term leases of state forest-land), which were organized into the larger industrial conglomerate through subsidiary

firms. PWC (2007: 8) outlines the logics behind a traditional forestry value chain. In particular, these include: (where possible) vertical integration and company control over forestlands; the location of fibre supply sources in relation to pulp mills and paper mills; and a dependence on external energy providers.

Through the 1980s and 1990s, particularly in North America, forestry and paper industries initiated a series of consolidations, as firms looked to reduce cost structures, (although as noted this restructuring has been partial, and the industry remained relatively fragmented compared to other global resource and industrial sectors) (PWC, 2007:8). Many of the traditional business and value chain arrangements are now being altered in fundamental ways, due to continued crises in profitability for companies in the industrialized North, shifts in the geography of production and consumption, intensified global competition between firms, and the introduction of new technologies, especially in fast growing plantation development.

An analysis of these restructuring patterns can be explained through a series of guiding statements, which are accompanied by more detailed explanations.

1) Increasingly global competition, the cyclical nature of commodity markets, and a neo-liberal investment, trade and regulatory regime, is reshaping traditional value chain organization for forestry and paper producers. This pushes forestry and paper companies towards expansions, mergers and acquisitions, globalization, and maximum economies of scale.

In terms of corporate consolidation, the top 10 global forestry paper and packaging companies accounted for approximately $145.7 billion in 2008 sales (40 per cent of the top 100's share). There was a series of significant mergers and acquisitions in the North American forestry and paper industry in the late 1990s, whereby the top five companies moved from controlling approximately 25 to 40 per cent of the overall regional market (PWC, 2009). Since that time there has been a continuing, modest upward trajectory with mergers and acquisitions, and the consolidation of a number of companies into significant global players, (led by US-based International Paper, with $25 billion in reported sales in 2008; PWC, 2009). The basic economic rationale for consolidation is consistent with trends in other resource-industrial commodity sectors. Larger firms, it is claimed, can attract lower cost of equity financing, they have lower overall operating costs, improved capabilities for capital expenditure avoidance through mergers and acquisitions (i.e. it can be less expensive to acquire a competitor than to build new pulp processing facilities), and improved capabilities for rationalizing production. Larger companies are also said to capture economies of scale in production and marketing, and have stronger negotiating capabilities with major customers (see CIBC World Markets, 2005:14).[47]

[47] According to Jaakko Pöyry Consulting (2004: 16), a fragmented industrial structure also raises the risk for damaging core price volatility in global pulp and paper markets. However Don Roberts, a forestry sector analyst with CIBC World Markets, notes that larger pulp companies may face logistical problems with coordinating wood fibre supply, and that a degree of public risk is introduced when sector-dominant firms control the marketplace. Importantly, other analysts, such as Spek (2006: 8)— writing in a public-interest capacity with CIFOR— dispute the idea of a linear relationship between industrial consolidation and enhanced competitiveness: "There is however no evidence from industries with greater consolidation that

These overall firm-based trends in the forestry sector are reflective of broader neoliberal-influenced shifts in the global economy, which are still oriented (recent financial market upheavals and private sector bailouts notwithstanding) towards a set of policy prescriptions which are consistent with neoliberalism— i.e. privatization, deregulation and free trade, financialization and securitization, and transnational flows of capital, investment and trade (Harvey, 2005).

2) The shift towards larger economies of scale in pulp and paper production is characterized by the increasing capacity and output from pulp mills. New, global-scale manufacturing platforms consume vast amounts of inputs, including wood fibre, energy, water, other industrial materials, as well as capital financing.

Shifts in economies of scale, toward ever-larger pulp manufacturing facilities, in turn require significant coordination of wood fibre supplies. For instance, a modern, world class pulp mill with a capacity of 1 million tonnes of pulp per year, consumes 5 million cubic meters of wood fibre annually; equivalent to the sustained yield from an area of tropical 'fast growth high yield' (FGHY) tree plantations in the range of 200,000 hectares.[48] This presents the industry with a series of political and territorial challenges in

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this in fact helps corporate profitability in the absence of oligarchic pricing practices. Conversely, quite a number of smaller producers can compete effectively and profitably."

[48] Assuming an average plantation productivity of 25 cubic meters per hectare per year.

securing the raw material supplies to feed these enormous facilities, and at a cost structure that still enhances overall profitability.[49]

3) As demand for paper and paperboard products are generally positively correlated with overall GDP growth and industrial expansion, (including as packaging materials for the export-based development), the East Asian region— specifically China— has emerged both as a global wood import complex, and a major production platform for new manufacturing investments in pulp and paper.

The extent of the global shift ongoing in the forestry and paper industry is apparent from recent data on the rate of market pulp capacity expansion by geographical location (e.g. Bingham, 2007; Barr and Cossalter, 2004; Spek, 2006). In 2006, Indonesia, Brazil and Chile were the lowest cost producers of bleached hardwood kraft pulp (BHKP), with Brazilian pulp manufacturing costs cited as some 22 per cent lower than in the US (Barnden, 2007).[50] On a global basis there has been an especially rapid expansion in productive capacity in Latin America and Asia, while the largest market pulp capacity contraction has been in Canada. Japan also shows very limited capacity expansion in the past decade. Spek (2006: 6) notes that between 1996-2006, 73 per cent of global growth

[49] Issues related to capital financing of pulp mills are discussed in detail below.
[50] See also for example, Financial Times (2005).

in global pulp production capacity took place in Brazil, Chile and Indonesia, with China also increasing pulp manufacturing capacity by 50 per cent in that period.

Writing after the increases in pulp manufacturing expansion in the 1990s, Barr (2002:1) called the post-millennium acceleration of China-based pulp investments: "[T]he most significant trend, by far, in the global pulp and paper industry…". The inflows of investment finance into the Chinese pulp manufacturing sector between 2002-2010 were forecast to be in the range of US$15-20 billion (Barr, 2002). These figures are also indicative of China's emerging extra-territorial ecological footprint or 'resource shadow' (see Dauvergne, 1997[51]).

Some statistics are useful to indicate this. China's pulp imports from 1997 to 2003 increased 26% per year, in comparison with rates of 1.6% for the rest of the world (Hawkins Wright, *in* Cossalter, 2004), quadrupling in the process from 10.2 million m^3, to 47.9 million m^3 (round wood equivalent— RWE).[52] From 1997-2005 China's overall forest product import volumes increased from 40 million, to a world leading 134 million cubic meters RWE per year (White *et al*., 2006). Chinese wood imports continued to climb

[51] Dauvergne develops the idea of Japan's 'shadow ecology' from MacNeil, Winsemius and Yajushiji (1991).
[52] Sun *et al*. (2004) provide a list of the volume conversion factors for different wood products used by forestry analysts. To compare and aggregate volumes along a common metric, various types of timber products are converted to roundwood equivalent (RWE) volumes (e.g. one cubic meter of sawn lumber equals 1.43 RWE cubic meters).

in 2007, increasing again to 175 million cubic meters RWE, representing a value US$17.9 billion (Bull and Northway, 2009).[53]

This trajectory in the China wood fibre and pulp market is perhaps epitomized by the 1.3 million Adt (air-dried tonne) per year bleached hardwood kraft pulp (BHKP) Asia-Pulp and Paper Jinhai project on Hainan Island; the world's largest single line pulp facility, which consumes approximately 6.5 million cubic meters of wood fibre supplies per year.[54] Other major existing and proposed expansions in pulp capacity in China, by APP, APRIL, Stora-Enso, Oji, and domestic Chinese companies such as Nine Dragons, are re-shaping the significance of coastal China in regional and global forestry trade structures and commodity networks (Barr and Cossalter, 2004).

4) Competitive pressures have also promoted a shift in the location of wood fibre production, from boreal and temperate forest resources located in northern countries, towards tropical and sub-tropical plantation-based resources. Tropical countries with abundant access to low cost plantation land, with minimal state-regulatory capabilities, and subsidy programs for supporting

[53] In their timber supply forecast models, Bull and Northway (2009: 1) state that these trends for Chinese forest product imports are expected to continue into the long-term, despite recent economic contractions. While other researchers point out that China processes and then re-exports approximately to 70% of the timber volumes that it imports, this applies largely to furniture and wood-based panels, and is less relevant to the pulp and paper sector (White *et al.,* 2006). In other words, the expansion of the China pulp and paper sector is based to a larger degree upon domestic sources of industrial and consumer demand. That said, container board is an important product segment for Chinese paper sector—which in turn is used in export based packaging material.

[54] The current (2008) capacity of the APP Jin Hai mill at Yang Pu could be increased even further, potentially up to a total installed capacity of 2.4 million Adt/yr of BHKP and 3.6 million tonnes of paper (Barr and Cossalter, 2004: 274).

> capital intensive investments are particularly favoured (i.e. Southeast Asia and Latin America). This shift in forestry production from global North to South also entails an industry focus upon a handful of improved, hybridized, fast growing pulpwood species which have properties favourable for pulp production— namely eucalyptus and acacia species. As pulp logs and woodchips are a high bulk/low value commodity, plantation investment planning is also influenced by the requirement to be located within economic transportation range of mill factory sites, or in relation to large container shipping port facilities. This is particularly true when oil prices are high.[55]

On the wood supply side, as noted there has been a dramatic shift towards the development of fast growing high yielding (FGHY) hardwood pulp plantations of eucalyptus and acacia in Southern countries, particularly in Brazil and Indonesia. The underlying rationale for this trend is clear. There are direct wood cost advantages for firms to move from bleached softwood kraft pulp (BSKP) production in northern countries to high yielding bleached hardwood kraft pulp (BHKP) plantation-based production, located in tropical or subtropical climates with inexpensive and large-scale access to land

[55] Lang (2008: 13), notes that in Europe, the costs of energy for pulp mills are amongst the top competitive considerations in the industry: "Although increases in the price of oil lead to increases in transportation costs, the transport costs of exporting pulp from, say, Uruguay to China is small compared to the costs of energy for pulp production." However, for modernized integrated mills, energy supplies can be co-generated from wood fibre waste (for instance, the Canadian sector co-generates approximately 60 per cent of its pulp and paper mill energy requirements, and is seeking to become a net green power generator in the future). Data from Wright (2004), details the variable costs for BHKP and BSKP production in different countries. For Brazilian producers of BHKP, ocean freight to market averaged US$44 per tonne, with wood costs at $71, and energy costs at only $10 per tonne.

(Bingham, 2007). New technologies in paper machines have also facilitated this substitution of 'long' softwood Northern country fibre (e.g. spruce, pine, fir), with low cost, fast growing, 'short fibre' hardwoods sourced from Southern counties (e.g. eucalyptus, acacia) (PriceWaterhouseCoopers, 2007: 9). The entrance of European forestry firms such as Stora-Enso and UPM Kymmene into China and Brazil have typified these calculations.

This shift away from natural (especially boreal) forest sources located in Canada and Scandinavia, and towards intensively managed tropical plantations, can also be understood as through Boyd *et al*.'s (2001: 557) discussion of extraction versus cultivation in resource-based industries, and the 'real subsumption of nature', whereby firms are able to take hold of and transform natural production, and use this as a source of productivity increase.'[56] Other material aspects of the woodchip-as-commodity also come into play here. For a low value, high bulk product such as woodchips and bleached kraft pulp, transportation costs are an important factor in the overall profitability matrix. The trend towards establishing fast-growing plantations in Brazil and then shipping this production to China could however be challenged, if oil prices were to increase and remain at elevated levels.[57] Such an oil price cost squeeze scenario could limit trans-

[56] From an actor-network approach, acacia and eucalyptus can also be understood as 'bureaucratic' and 'networked' tree species; the favoured tree species of scientists and industrialists, the focus for intensive nursery systems and breeding improvement schemes (Robbins, 2001:651; Kull and Rangan, 2008). The spread of industrial tree species can thus be understood in terms of their enrollment within global commodity systems.

[57] A key indicator which tracks global container shipping prices, and which serves as a benchmark for ocean freight transportation costs, is the Baltic Exchange Dry Index (http://www.balticexchange.com/)

continental trade flows and, for example, situate Southeast Asia more closely as a pulpwood supply zone for coastal China.

5) The outcomes of these global competitive pressures have led to a rapid rise in FGHY plantations in tropical forestry-producing countries with supporting pro-investment policies, especially Indonesia and Brazil. These logics have also raised the profile of countries such as Laos (amongst others) as secondary territorial bases for wood fibre production to supply processing mills facing structural wood supply deficits, particularly the new pulp mills being established in China.

An indication of the real cost pressures driving restructuring in the pulp and paper industry can be understood though data presented in Wright (2004). The total delivered cash costs for one tonne of wood pulp were estimated at US$214 for Brazilian producers, $234 for Indonesia, and $399 for eastern Canada (all prices cif/tonne). BSKP costs reached US$491 for coastal BC. Numbers such as these go a long way in explaining the current crisis in the Canadian forestry and paper industry.[58]

It is thus not accidental that overall profitability has been high for pulp forestry and paper producers based in Latin America and Indonesia. Here, companies have secured access to extremely low cost forest and land resources and wood fibre supplies. Operators in Brazil

[58] See Globe and Mail (2009b): "Canada's forest industry needs an entirely new business model if it is to remain a substantial creator of wealth."

such as Aracruz Cellulose represent amongst the lowest cost, highest yielding hardwood plantation producers in the world, with eucalyptus plantation growth rates averaging over 40 cubic meters/hectare/year (Wright, 2004). Just as importantly, in the case of Indonesia, windfall profits for the export-oriented pulp mills owned by APP and APRIL in Sumatra have been achieved less due to a quality tree breeding and plantation programs, as much as to widespread illegal access to areas of natural mixed tropical hardwoods, and a variety of illegal or quasi-legal practices including transfer pricing between integrated companies (Barr, 2000, 2001; Brown, 1999; Pirard and Rokhim, 2006).[59] FGHY forestry companies in Brazil and Indonesia therefore have the productive capacity to act as core exporters of woodchips and bleached hardwood kraft pulp, to meet requirements in other regions, either through world-class plantation innovation and productivity (in the case of the former), or world-class illegality (for the latter).

Emerging Dynamics in the Forestry and Paper Industry

While the discussion above has outlined a series of sector rationalities to the pulp sector, very recent changes in the industry are acting to again restructure even these

[59] Indeed, the entire portrayal of Indonesia's position as an 'effective and efficient' low cost pulp producer has been called into question by analysts from CIFOR. For instance, the total amount of illegal or quasi-legal forest resource rents captured by APP/Sinar Mas subsidiary companies Indah Kiat and Lontar Papyrus between 1994-2003, secured through the conversion of natural forests, and facilitated through practices of transfer pricing, and the re-direction of capital through affiliated domestic banks and external investors, has been estimated conservatively at US $300 million, and plausibly up to $1 billion (Pirard and Rokhim, 2006). These authors write: "[T]he links between the three spheres finance-governance-forests have been very strong…" (ibid.: p. 1). It is, however likely important to note that the APP-Sinar Mas case in Indonesia is somewhat of an exceptional example of corporate mis-governance in the forestry and paper sector: "The theory we discussed in this paper would not be valid where the legal system is functioning, and where a bankruptcy law would force the ultimate shareholders (or at least the group) to render their personal assets (or at least the corporate assets)" (ibid.: 12).

relationships. PWC (2007) highlights how many pulp and paper companies are moving *away* from vertical integration and full control over forest-lands. In mature markets (North America in particular), as a response to continuing supply chain deflation and a de-linking between GDP growth and paper consumption, forestry and paper companies are seeking to focus on more profitable and value-added areas of their business. This strategy includes divesting direct control over fibre supplies and forest-lands, and moving towards fixed contracts with specialized forest management companies (PWC, 2007). So-called 'alternative equity' firms, raising finance capital though hedge funds, pension funds, and university endowments; organized into low-tax TIMOs (Timberland Investment Management Organizations) and T-REITS (Timberland Real Estate Investment Trusts), are becoming major players in the management of forestlands.[60] The production of cellulosic ethanol as a wood based alternative energy is also poised to become a major focus for new forestry business activity worldwide. In terms of pulp and paper production, the industry appears to be splitting between high efficiency, flexible, consumer-oriented producers based in the EU and North America; and low-cost, very high volume bulk producers located in South America and Asia.

An important point for this chapter, as Neilson (2007) and PWC (2008b, 2007) note, is that the key pulp and paper producers in Asia, especially Japan-based Oji Paper and Nippon Paper; as well as Asia Pulp and Paper in China, are bucking the trend towards

[60] See Gunnoe and Gellert, 2011, and their explanation of an 'ecological political economy of financialization', that focuses upon the United States-based forestry sector.

divesting control over forest-lands. Due to a number of factors, including a growing and structural fibre supply deficit in East Asia, as well as what one industry analyst described as 'cultural differences'[61] in the management cultures of firms based in North America, Japan and Brazil (Anonymous personal communication, June 26, 2009), paper mills located in China and Japan are *not* seeking to divest control over forestlands, and are instead further extending direct control over forest-lands and fibre supplies. As will be explained, this pattern has direct implications for the strategies of forestry and paper firms with operations in China and Japan, for greenfield forestry investment and plantation concessions in Laos.

Summary

This section has presented a series of sector rationalities that are at the heart of the restructuring of global and Asian regional pulp and paper commodity relations in the past two decades. The major patterns of world wood supply, production, consumption, trade, and capacity expansions have been outlined. The key trends in corporate consolidation and control over the industry have been established, and the linkages made between financing procedures for pulp mill expansions and problems concerning the legality and sustainability of plantation wood supplies in the East Asian region. A set of industrial

[61] It was unclear what this informant what this informant was referring to by the notion of 'cultural differences' in the boardrooms of Japan, Brazil and the USA. However Gunnoe and Gellert's (2011) discussion of the ideology of short-term 'shareholder value' in American corporate capitalism, and its relationship with the divestiture of American timberlands into TIMOs and T-REITs, offers an indication. Shareholder value as a distinctly American financial management concept is closely associated with Jack Welch, the Chairman and CEO of General Electric Ltd. from 1981-2001.

logics have also been established, including economic growth trajectories, and cost structures which are broadly guiding the global-geographical patterns of expansion and restructuring in the wood pulp global production network. An understanding of these relationships is important for locating the rationalities behind global shifts in forestry and commodity production into the Mekong region.

The economic realm cannot be separated from the political however. The political actions and decisions by a range of other actors is also very important, including state governments, multilateral institutions like the ADB, WTO and the World Bank, global financial institutions and NGOs. These institutions and actors are often involved in establishing the regulatory regime and in providing incentives for this industry to expand in specific places. In addition, the centralization of power that comes through raising large amounts of resource capital for pulp mill expansions, can result in the introduction of perverse incentives into this industrial sector. The 'neoliberal' components of privatization, free trade, global competition and investment, financialization and securitization, and the deepening commodification of natural inputs, are mixed together with some very illiberal forces, including widespread state subsidies, access to illegal timber, clientelist relations, the provision of preferential supports, and patterns of corporate mis-governance tied to poorly functioning legal regimes in some countries.

Empirically, what is most important in terms of the political economy of plantation and pulp GPNs, is the rise of new, world-class pulp production facilities in coastal China.

This has established a definitive advantage for the development of export-based plantation and woodchip projects from forest-land concessions located in nearby mainland Southeast Asia. With this trend, the political-economic and geographical stage has been set for the expansion of industrial pulpwood plantations in Laos.

In the next section, additional components of a forestry and paper sector GPN are identified and developed, through a focus on regional relations of profitability, inter-firm competitiveness and expansion, and the dynamics of wood fibre supply.

3.3 Regional Expansion, Inter-Firm Dynamics, and Fibre Supply in East and Southeast Asia

> "Oji Paper has a major hardwood plantation project underway in Laos and is exploring plantation development possibilities in East Africa. APP China and APRIL plan to import acacia woodchips for their pulp mills in China from several new woodchip plants in Indonesia, and both companies have been working to secure fiber from surplus plantations in that country. The ability of these Indonesian plantations to supply woodchips to China on a sustainable basis will be a key factor in determining wood fiber balances in the region— no other large new hardwood fiber sources are available in the short term to meet the expanding market demand."[62]

The above article from the forestry and paper industry website RISI (Flynn, 2007) provides a good overall summary of the regional context and logics of the woodchip trade and fibre supply dynamics in East Asia. Based on the information presented thus far, we can now develop a further series of points which focus on the uneven spatial architecture

[62] Source: "Pacific Rim Woodchip Markets: Tighter Supply/Demand Balance Ahead." Bob Flynn, Director, International Timber. *RISI.* Seattle, Jun. 21, 2007 (Viewpoint).

of regional industry expansion, and inter-firm dynamics. We can also begin to show how specific patterns of manufacturing capacity expansion and wood supply are shaping fast growing plantation sector developments, with particular reference to the emergence of Laos as an export-based plantation producer. The objective of this section, explained below and also developed further in the next chapter, is to lay the conceptual and empirical ground work for explaining how the plantation and pulp sector GPN incorporates nature, territoriality and the state in distinctive ways (Bridge, 2008).

As explained above, coastal China has been one of the most dynamic global platforms for pulp and paper capacity expansion over the past fifteen years. The basic reason for the quick pace of this capacity expansion in East Asia relates to the growth trajectory of the Chinese economy generally, including China's heavy export-based growth model, which boosts demand for packaging materials. But the relative profitability indicators of forestry and paper companies operating in China are also important, particularly as compared with North America, Europe and Japan— the traditional centers of paper production. And unlike pulp mill expansions in Latin America and Indonesia, China's pulp capacity expansion program are less likely to be founded upon domestic access to wood supplies.

On a regional basis, Japan's pulp and paper industry is still by far the dominant producer, and is the major importer in the East Asian trade in hardwood woodchips (Flynn, 2007).

In terms of the regional fibre supply balance, what happens with plantation expansion in Indonesia over the coming decade will likely be the most important factor,[63] although there is room for other countries to expand plantation production, especially Malaysia, Laos, Vietnam and Cambodia. The dynamics of pulp capacity expansion in Japan and China is an important hinge that affects overall regional development. A focus upon industrial restructuring in Japan is therefore important for locating the rationalities behind Oji Paper's proposed pulp capacity expansions into China, and Oji's recent plantation expansion project in Laos, which forms the case study material in subsequent chapters.

To locate the impetus behind regional restructuring, we can draw upon some available comparative indicators of firm profitability. In the paper sector, this can be gleaned from the annual PriceWaterhouseCoopers (2008) industry survey, via their survey data on ROCE, or 'Return on Capital Employed.' In terms of overall revenues, Japanese forestry companies are the undisputed Asian market leaders. In 2007, Japanese domiciled forestry firms generated $42 billion of revenues, with 'emerging Asia' firms (including China and Indonesia) accounting for $12 billion (PWC, 2008a). However the ROCE profitability figures for forestry and paper companies domiciled in emerging Asia in 2007 was 7.3%,

[63] See Pirard and Cossalter (2006) on the potential for wood fibre from existing but underutilized plantations in Kalimantan to supply mills in Sumatra or coastal China. Barr (2008) notes that the Indonesia Ministry of Forestry is currently targeting major expansions in pulp and paper capacity. Under the 'Roadmap for Forest Industry Revitalization', the Indonesian plantation zone would expand by an additional 9 *million* hectares. Barr notes that this plan would entail Indonesian pulp and paper wood demand increasing from the current 29 million m^3/year towards 72 million m^3; and an additional 10 million tonnes of pulp capacity would involve more than US $15 billion in investment financing. Needless to say, this roadmap carries significant implications for deforestation and forest degradation, and community displacement in Indonesia, and would strategically reshape regional and global pulp markets.

compared with only 2.5% in Japan. This reflects a general decline— even crisis— in the profitability of the domestic Japanese pulp and paper sector. Japan is a mature market with declining paper consumption and with a state industrial policy that has resisted further consolidation of corporate players (Penna, 2002). In response to these domestic constraints, the major Japanese pulp firms, including Oji Paper, have initiated an offshore pulp and paper manufacturing expansion program in China.

In general, pulp mill expansion projects in China have been supported by a full range of state-backed policies and support mechanisms. The country is in the midst of a program of upgrading technologically outdated pulp mills, which often utilize non-wood based pulping sources. These are being replaced by globally competitive, large volume, high-tech pulp manufacturing mills that produce BHKP and BSKP (bleached hardwood and softwood kraft pulp) (Barr, 2002). The range of state subsidies and incentives for new wood-based pulp mill development in China include: fast-track investment approvals for prioritized projects; discounted loans organized through the state controlled China Development Bank and the Agricultural Bank of China; loan interest subsidies organized through the Ministry of Finance; and devolved investment approval responsibilities to provincial governments (Barr and Cossalter, 2004: 269).

Typifying this geographic shift, Oji Paper's planned new Nantong pulp and paper complex, located near Shanghai, represents a massive new foreign investment into China.

The project represents an investment of US$1.95 billion, and involves construction of a 700,000 Adt/year BHKP pulp mill (to come online in 2012), and a 400,000 tonne/year fine paper mill (with a start up date of 2015, eventually to be increased up to 800,000 tpy) (RISI, 2008).[64]

Barr and Cossalter (2006) however reiterate that in the China context, the economic feasibility of the large-scale pulp mill investments will be dependent upon the establishment of a plantation base and corresponding control over wood supply costs. While these cost pressures may or may not be sufficient to redirect the viability of targeted pulp expansion projects in China (although this has occurred, for example, in 2004, UPM Kymmene withdrew from a pulp expansion project in Guangdong province, in part due to questions over the cost of fibre supply), what is established is a requirement for players entering the Chinese pulp manufacturing market to secure their supply strategies, and to diversify geographically to secure wood supply sources.

The Political-Economy of Wood Fibre Supply and Pulp Mill Expansion in China

As with the experience in Indonesia in the 1990s, expansion projects in the China pulp and paper market are raising significant questions concerning the fibre supply strategies

[64] "Woodchips to feed the pulp line will come from the group's plantations in China, Vietnam, Laos, Australia and New Zealand. Oji has estimated that it will need 1.4 million tonnes/yr of chips for it, with 200,000 tonnes/yr to be sourced from China and the remaining 1.2 million tonnes/yr from overseas." (RISI, 2008). Recently, it appears that progress on the Nantong project may have slowed. Oji Paper has not made any recent announcements concerning on whether the late 2012 start-up date is still in place.

to feed these mills (Barr, 2002; Barr and Cossalter, 2004). This problematic presents itself through the availability of FGHY wood supply within an economic transportation distance of the coastal greenfield pulp mills. As logs are a high bulk/low value commodity, overland this distance is typically considered to be in the range of 300 km by truck. While China has a major plantation program in operation, the emerging wood demands are also very large— surpassing domestic plantation production capabilities for many players. The wood volumes generated from FGHY plantations within China can also be streamed into higher-end wood industries which compete with the pulp sector for wood supply—for example to manufacturers of wood panels such as MDF, or wooden furniture. In addition there is growing competition for land use for protection or conservation forest, or for the agro-food sector in China. Gaining access to plantation land is a slow and expensive process in China, with most suitable land already under household or communal tenure (Barr and Cossalter, 2006).[65]

Overall, the combination of these factors is resulting in more expensive access to land, and thus in higher delivered wood costs, for pulp producers located in China, as compared to competitors' pulp mills located in Indonesia or Brazil— both of which also export pulp to China (Barr and Cossalter, 2006).[66] As Chinese pulp producers are now required to be

[65] Annual land leasing rates for flat, good quality plantation areas in coastal China have been cited at around $70 per hectare, in Vietnam $20-$40 per hectare, and in Thailand $17-$30 (see Midgley, 2006). In Laos, evidence indicates that land rents charged by state agencies, or officials within the Lao state, to plantation firms can be $3- $6 per hectare (Schumann, *et al*., 2006), or lower. At times in the region, as with Oji-LPFL in Laos, the state's economic interests are also being expressed through a joint venture equity shareholding in the plantation company.

[66] Barr and Cossalter (2004: 270) show data for delivered wood costs in South China at between

competitive in an open, global market, the price of access to land and wood supplies in mainland China has a direct bearing upon the overall economic viability of many pulp and paper expansion projects.[67]

The Chinese government, in a move to reduce wood imports, has reportedly earmarked US $8.6 billion to finance the development of 13.3 million ha of FGHY plantations during the period 2001-2015, with approximately 5.8 million hectares of this total targeted as pulpwood plantations (Barr and Cossalter, 2004: 269). Preferential supports have also been provided in support of FGHY plantation expansion in China, including: loan interest subsidies, access to discounted loans from state banks, and extended repayment periods for priority reforestation projects (Barr and Cossalter, 2004: 270). However, more recently, concerns by provincial governments over tree cover are also affecting plantation operators in China (Anonymous, personal communication, Feb. 9, 2011). As pulpwood plantations are a relatively low value/low profit margin land use, Chinese officials are reportedly now becoming less concerned with plantation promotion than they were just a few years ago, particularly with China's fast economic growth through the past decade.

US$20-25 per tonne for eucalyptus from state forest farms and US$30-40 per tonne for eucalyptus grown on collectively owned land (managed by farmers' cooperatives or leased from local communities by plantation companies). Comparatively, wood fibre costs for producers in Indonesia are listed at US$12-25 per tonne from natural forest mixed tropical hardwoods, and from *Acacia mangium* plantations. Pulp producers in Brazil on the other hand can access wood supply at a price as low as US$5-15 per tonne (ibid.).

[67] Barr and Cossalter (2006) show that as delivered factory gate pulp log costs increase above $45 per tonne, "South China producers will have difficulty competing with imports from Indonesia and Brazil."

Thus, despite state support for plantation expansion programs, there are significant constraints regarding the ability of Chinese plantation operations to supply the pulp mills being developed in coastal China, as well as the ability of China's plantation operations to compete on a delivered wood cost basis with the global low cost exporters (Barr and Cossalter, 2004).[68]

According to Barr and Cossalter (2006) (see also Wright, 2004), delivered wood costs typically account for approximately 40-50 per cent of the overall operating costs in a modern pulp mill. In theory, therefore, one would expect that major investment decisions on greenfield mill expansions, and decisions regarding the location of such expansions, *should* closely relate back to baseline (legal) fibre supply assessments; whether these supplies are attained from natural forests, from company- owned plantations, from contracted suppliers, from the open global market in woodchips, or a combination of these. In reality however, as an IFC (2006) study points out, poor planning and lack of regard for socio-environmental parameters in pulp mill expansions has been rewarded, because it was advantageous for firm owners to do so. In Barr's Indonesian example, strong elements of 'moral hazard' involved with the well-connected industrialists and families operating APP and APRIL during Suharto's administration in Indonesia (1966-

[68] According to RISI (2005), about 23 per cent of the wood requirements for APP's 1.3 million Adt/year pulp mill on Hainan is coming from imports. Other pulp mill expansions in coastal China, including the planned Oji Paper project near Shanghai, as well as APRIL's Rizhao facility in Shandong (controlled by APRIL through the Raja Garuda Mas Group), are in a similar position in relation to a significant dependence upon wood imports. As one forestry and paper analyst related (pers. comm., 2009): "Japanese and Chinese paper companies will try to in-source much of the woodchip supplies, but will struggle."

1998) also meant that developing sustainable supply strategies, or even legal business models, was by no means the top priority for many of the key entrepreneurs involved. Lang (2008) for instance quotes Guardian journalist John Aglionby (2001) on APP's wood supply operations: "Every step in the chain is illegal" (see also Brown, 1999).

Evidence from pulp mill expansion processes underway in China similarly indicates that this kind of rational assessment of sustainable fibre supply is not always undertaken (Barr, 2001, 2000), and nor in fact has it been demanded by the global financial institutions (Spek, 2006).[69] One research informant, referring to the Indonesia-Singapore based Asia Pulp and Paper, argued that this family-based company actually made most of their gains through the huge construction contracts associated with establishing large pulp mill facilities, as opposed to any sound analysis of 'market-fundamentals' based on actual pulp production projections (Anonymous, personal communication, Feb. 9, 2011). This interpretation highlights how extremely large-scale pulp production facilities can at times introduce a set of perverse logics into the industry, that have very little to do with economic valuations or 'market fundamentals' (see also, e.g. Spek, 2006).

Due in part to the efforts of researchers from CIFOR, increased independent attention is now being paid to questions of wood fibre supply for financing pulp mill expansion

[69] The concept of 'fibre supply shortages' is more accurately understood in terms of in terms the demands of an industry to access required supply volumes at a cost which facilitates a competitive rate of profit. Even in this sense however, if questions of fibre supply are weighed in terms of the dependence of a particular pulp and paper operation, or indeed for a state or region, upon *inexpensive* wood, many producers in coastal China in particular could be considered to be operating under various degrees of constraint. Indeed there remain questions on whether plantation production in China will be competitive with imports (Barr and Cossalter, 2004, 2006).

projects in the Asian region. The work of Barr (2000, 2001) and Spek (2006) has been of particular importance for understanding issues of due diligence as conducted by investment finance institutions. Spek notes that while financing for large greenfield pulp mills is usually generated through international capital markets,[70] multilateral funding[71] can nevertheless be crucial for whether or not a project proceeds in high sovereign risk environments. This occurs via what Spek (2006: 38) terms as establishing a "pre-disposition to lend," especially when the World Bank Group's International Finance Corporation becomes involved.

Barr and Spek's research strikingly shows how financial institutions have rarely extended adequate due diligence into the sustainability and legal wood supply sources for pulp mills. Based in particular upon the negative experience with pulp expansions in 1990s Indonesia, where inadequate due diligence practices results not only in widespread

[70] Which can include loans, corporate bonds or equity secured through international capital markets. Spek (p. 38) writes: "In terms of actual amounts, pulp and paper companies have raised far more money in the US and international capital markets as compared to from multilateral lenders. Financing activity in the former markets totaled US$215.5bn between 1990 and Jan-05 which compares to direct investment/lending by the IFC, EIB and EBRD of US$2.1bn." Writing before the recent economic downturn, Lang (2008: 25) also noted that US pension funds and university endowments had more than US$8 billion available to invest in forest and plantation operations (see also Neilson, 2007).

[71] Which can include: direct financing, or loan guarantees provided by Northern public sector institutions, including from the World Bank Group (IBRD, MIGA and IFC); regional development banks, or from Western Export Credit Agencies. Chinese state banks are themselves now quite capable of supporting very large new mill investments however. It is important here to note that despite the billions of dollars in capital flows and investment forestry and paper has not been an important market segment for small equity investors. As Spek (2006: 36) notes: "From the perspective of a buy-and-hold investor, the sector is not attractive as its return on equity through a cycle is well below levels seen in other sectors. … The real money is made in origination and mergers and acquisitions." Spek (p. 37, Box 3.3) further outlines a number of key reasons why large pulp mill projects in relatively 'risky' emerging markets such as Indonesia are nevertheless able to attract such significant flows of capital. These reasons include the (until recently) increased liquidity in capital markets, and how currency risks in the export-based pulp sector are minimized due to the fact that revenues are typically priced in US dollars, which can produce windfall profits when emerging market currencies collapse relative to the dollar.

deforestation, but also in major corporate debt defaults by APP and APRIL, Barr and Spek argue that questions of sustainable wood and fibre supply must be considered as a much more central problematic for the financing of large wood production facilities:

> "The picture that emerges suggests that most export credit agencies, merchant banks, and other private sector investment institutions have little in-house expertise related to forestry issues and/or social and environmental impact assessment…In practice, this often means that a range of issues which may have critical importance to the success of a proposed project-- such as growth rates and productivity levels at supporting plantation sites; the legality of wood to be consumed by a proposed mill; and the likely impacts of a project on local livelihoods -- are poorly assessed." (Spek, 2006: vi)

While much of the expansion of pulp mills in coastal China has been financed through Chinese state-owned banks as opposed through the World Bank and Western financial institutions, an under-emphasis on questions of sustainable wood supply seems to have been repeated. Indeed, two of the key pulp and paper firms that have entered into coastal China, APP and APRIL, were integral to the negative Indonesian experience with pulp mill development, and a dependence upon natural forests from the 1990s to the present.

More recently, the potential for a future crisis of overinvestment and industrial overcapacity in China is now being raised. PriceWaterhouseCoopers (2007: 19) for instance notes:

> "Many in the industry are holding their breath and hoping that capacity expansion in China will slow to allow domestic demand to catch up… international players who are not in China already are waiting to see how the market shapes up, in anticipation that there will be casualties from overinvestment."

Regarding East Asian fibre supply strategies, the scenarios are, as always, in flux. Industry analyst Neilson (2007: 15) for instance noted the ongoing expansion of planted forests in Brazil, Malaysia, Vietnam and Laos, while in Indonesia the industry is experiencing increasing social and environmental conflicts involving forest conversion to plantations.

This situation of rapid industrial expansion through mega-mill development, poor or risky planning of wood supply strategies and financing, and the potential for overcapacity and price collapses, does not bode well for "rational" market-based forest development planning in supplier countries to China. In fact, all of the potential wood supplying countries in Southeast Asia— not just Indonesia— face deep forest governance and regulatory challenges themselves. This situation presents strong incentives for opportunistic actors to seek access to resource rents, through gaining control over forest-land concessions in Southeast Asia. Foreign investment in China's pulp and paper industry has also become implicated in the concessions boom, and corresponding struggles over land and livelihood, in neighbouring Laos.

In the next section, I turn to presenting a case study on intra and inter-firm dynamics in the Asian forestry and pulp and paper sector. A more specific focus on the dynamics associated with the firm Oji Paper and its competitors, and inter-firm struggles over positioning in the high growth Chinese market, will help complete this analytical portion

of the global production network. Other aspects of a GPN approach, involving firm-state dynamics, and aspects of the territoriality of commodity production, will be fleshed out in detail in Chapter 5, through an analysis of the production of a 'resource frontier' in Laos. As will be shown, access to resource rents are crucial to the integration of a new Lao resource frontier with a regional-global plantation and pulp wood global production network.

A Case Study of a Pulpwood Global Production Network: Oji Paper's Inter-Firm Dynamics and Industrial Wood Supply Strategy

Looking at industrial expansion and wood supply strategy in relation to the Japan-domiciled firm Oji Paper, provides a fascinating glimpse into how forces of globalization and regional integration are restructuring Asian forestry markets. These regional competitive dynamics are in turn producing changes in territorial control and resource governance in Southeast Asian forestry producing countries. Developing a case study to expand upon these themes, I focus here specifically upon Oji's pulp and paper mill investment under construction in Nantong China, Oji's strategic plantation investments in Laos, and competitive relations with their primary industrial competitor in Japan—Nippon Unipac.

Prior to World War II, Oji held a national monopoly on paper production in Japan, until the sector was broken up by the postwar US-backed administration (Penna, 2002: 119). Through the post-war Japanese boom, Oji Paper moved to re-consolidate its leading

position within the industry, embarking upon a series of large expansion projects. The overall post-war Japanese economy was also growing quickly. From 1945-2000, paper and board production in Japan expanded rapidly, from less than 1 million tonnes per year, to approximately 35 million tpy (Penna, 2002: 97-98). The full history of Oji Paper in the Japanese post war boom includes a series of complex struggles over state support and trade policy reform, patterns of inter-firm competition and restructuring, and strategies to secure offshore wood supplies (see in particular Penna, 2002 for a detailed treatment). Oji Paper however has emerged in the past decade to become Japan's largest paper producer, joining the top ten forestry and paper firms in the world by annual revenue.

The basic features of Oji's plantation wood supply strategy as of 2004, are available from their website, although this data is not complete, and mill-specific information on fibre supply is not publicly available. Certainly the wood supply for the company's integrated pulp and paper operations are now global; with fibre sourced from within Japan, as well as Southeast Asia, South Africa, North America and South America. These wood supply sources include both company-leased land and contract/outgrower operations, as Figure 3 shows.

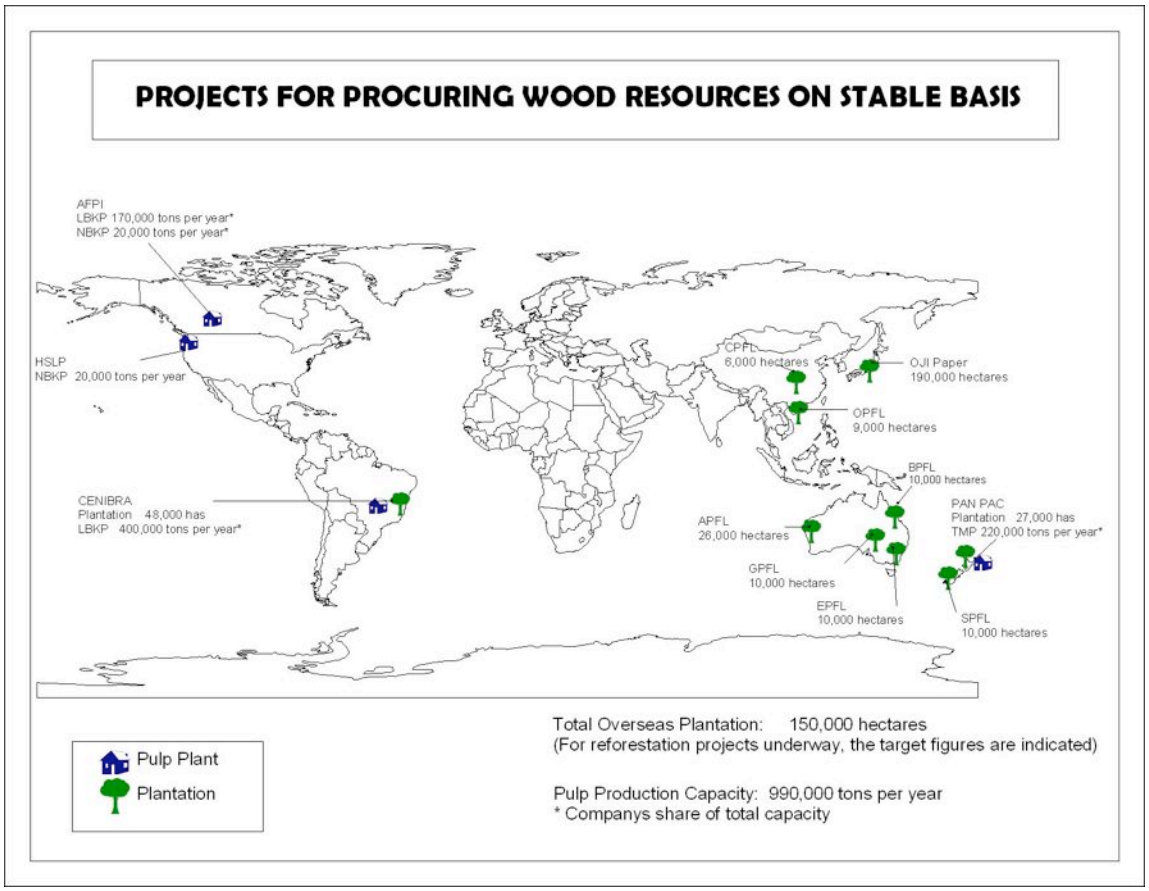

Figure 3: Oji Paper's Global Operations in Plantations and Pulp and Paper Manufacturing (Oji's LPFL expansion project in Laos not included). (Source: Adapted from http://www.ojipaper.co.jp)

Oji's globalization strategy, for both sources of wood supply and development of pulp and paper manufacturing mills, is reflective of the declining terms of profitability, and paucity of inexpensive wood fibre, available within the Japanese domestic market. Penna (2002: 115) highlights in detail how this situation extends beyond only Oji Paper. Japan's pulp and paper industry as a whole is affected by high cost structures, particularly as

reflected in the price of domestic fibre supply and energy. A full analysis of the competitive position of Oji versus key Japanese-domiciled competitor firms, such as Nippon Unipac, and how this relates back to cyclical changes in the regional and the global economy, expansion strategies, and the wood supply strategies of the respective firms, is too complex a topic to engage with here. However drawing upon previous research from Penna, as well as industry analysis such as by Neilson (2007), and PWC (2007), we can draw out a number of key points.

First, Penna (2002: vii, 164) argues that enhanced control over wood fibre supplies, and therefore wood cost structures, have been a central component of the competitive strategies by leading Japanese pulp and paper firms. The formation of *kieretsu*, or company groups, formed by integrating sawmills, chip mills and distribution firms, has been a second central strategy. Japan's Ministry of International Trade and Industry (MITI)[72] typically played a supportive, stabilizing role in shaping industry restructuring, moving the sector towards re-consolidation in an effort to stabilize cycles of over-investment and over-capacity in the industry (p. 135). Penna (2002: 135) notes:

> "This restructuring helped protect the flow of fibre through the industry and increase it through particular companies. Integral were the related objectives of concentrating ownership, expanding market share, improving profitability, counteracting cycles of overinvestment, and strengthening control over prices and resources."

[72] See Johnson (1982) on the role of MITI in directing twentieth century Japanese industrial policy. MITI played a major role in approving investment loans to business groups, devising tax breaks, and in regulating competitive relations within industrial sectors. MITI was also said to attract the 'best and brightest' into working in the bureaucracy, and MITI personnel maintained close personal relationships with industry leaders. MITI was a central institution for Johnson's interpretation of the East Asian developmental state.

In the early 1990s, in response to sharp declines in profitability in the Japanese paper sector (Penna, 2002: 117) the general trading companies, as well as MITI and key Japanese financial institutions, supported a diversification strategy, toward investment in plantation-based wood supply sources in Southeast Asia and the Asia-Pacific region (Penna, 2002: 135). This represented a modification of the typical approach by Japan's *sogo sosha* or general trading corporations from the 1960s-1990, which at the time tended to avoid entering into direct investment in overseas forestry operations (Dauvergne, 1997: 165).[73]

At the present time, two Japanese firms in particular have become the consolidated market leaders in the Japanese pulp and paper industry: Oji Paper and Nippon Unipac. Both companies have become active in sourcing woodchip supplies overseas, in Australia, Chile, Ecuador, Brazil, South Africa, Laos, and China, through company-owned plantations or through joint venture agreements.[74] Neilson (2007: 4) writes:

[73] Dauvergne (1997: 87) notes that there was involvement by the Japanese *sogo shosha* Marubeni Corp. into mangrove woodchip production in Indonesia in the early 1990s. The *sogo shosha* were certainly key players in supporting timber concessionaires and plywood processing firms, and as purchasers of log exports from Southeast Asia from the 1950s to the 1990s, as Barr (1998), Gellert (2003), Dauvergne (1997), Ross, (2001a) and others have shown. See also Young (1979) for a general analysis of the role of the *sogo shosha* in post-war Japanese industrialization policy.

[74] Lang (2008: 14) notes that Oji Paper has only recently shifted away from importing woodchips from old growth Tasmanian forests: "However, the decrease in exports from Tasmania is matched by an increase in exports to Japan of wood chips from industrial tree plantations in South Africa. The pulp and paper

> At the end of 2006, Japanese companies owned or controlled 230,000 hectares of overseas planted forests, with a total target area of more than 400,000 hectares. And these targets are increasing. For instance, following the purchase of a major planted forest resource in Northern Brazil in late 2006, Nippon Paper Company had met its goal of a 100,000 hectare overseas estate; but in 2007 again raised its target area by another 200,000 hectares. Another company, Oji Paper Company has a target to raise its existing 170,000 hectares of pulpwood estate to 300,000 hectares by 2010. A challenge for these companies is that they are increasingly running up against competition from the USA (tax free) pension/endowment funds in seeking to secure land and planted forests.[75]

In response to these dynamics, Oji has sought to expand their supply base in Southeast Asia. Ideally this has been through plantation concessions, however where necessary Oji has secured supply through joint ventures with host governments, via contract arrangements with local farmers, or through alliances with the *sogo shosha*, such as Marubeni, Itochu, or Nissho Iwai.[76] For example, through the Quy Nhon Plantation Forestry Co. Ltd. (QPFL) in central coastal Vietnam, Oji Paper and Nissho Iwai have developed a joint venture with the Quy Nhon State Forest Enterprise to export 80,000 tonnes of eucalyptus woodchips to Oji's pulp mills in Japan (Barney, 2005a: 35).

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industry's global demand for cheap wood fibre has shifted the destruction from Tasmania's old-growth forests to South Africa's grasslands."

[75] Pension and university endowment funds have been important in directing global investment into the US and Australian plantation sector in particular, attracted by the low but generally stable and predictable plantation forestry investment yields, which can act as a buffer for portfolio risk. Gunnoe and Gellert (2011) note this central importance of institutional investors into the political and economic power structures of American capitalism and its linkages to the rise of 'shareholder value.'

[76] For instance, Oji Paper has a series of investments in woodchip plantations in coastal Vietnam under the 'Vijachip' umbrella of companies (Vijachip Danang, Vijachip Cai Lan, and Vijachip Vung An). These are joint venture arrangements with Vietnam's provincial state owned forestry agencies (Vinafor); and in some cases include partnerships with the *sogo shosha* Nissho Iwai (Barney, 2005a: 33). Oji has recently announced interest in developing an additional pulp mill facility at the coastal Vietnamese port of Danang, although this proposed expansion seems to be at a very preliminary stage (RISI, 2007).

In Thailand, while Oji Paper is not engaged in direct joint venture agreements, they are a major purchaser of woodchips from the Thai eucalyptus woodchip firms Siam Tree Development (Barney, 2005a: 44) and Thai Wittawat (Barney, 2005b: 42). Oji's pattern of accessing woodchip markets in nearby Southeast Asia, as well as from company-linked suppliers located in Australia, South Africa, and Brazil, represents a geographically diversified hedging strategy, which is aimed at providing greater security in terms of both cost structures and guaranteed access to fibre supplies in a competitive East Asian region, as compared to simply purchasing woodchips or market pulp on the global market.

The issue of transfer pricing[77] cannot be ignored when considering the role of subsidiary resource suppliers to major multinational forestry and paper firms in poorly regulated legal jurisdictions. There is some evidence that corporate governance in this sector is further compromised when individual families dominate company's directorship, such as with the Widjaja family and APP in Indonesia, or Thailand's Dumnernchanvanit family and Advance Agro. While I have not come across any evidence of this practice involving Oji's fibre-supplying sub-companies in Laos or Vietnam (the joint venture status of most of Oji's investments, with state governments as the equity partner, might mitigate against this potential, as long as public sector officials in Laos and Vietnam are auditing these

[77] Transfer pricing is definable as "[A] transaction between two related entities, with a price based on strategic factors rather than market factors. It is a means for the stakeholders to declare profits or losses at whichever company they choose, for reasons usually linked to tax rates" (Pirard and Rokhim, 2006: 12).

companies to professional standards), the transfer pricing issue has been raised in other regional contexts involving forestry sector investments, and this practice forms part of the regional competitive environment in which forestry and paper firms operate in Asia. The potential for transfer pricing between companies in an integrated forestry and paper conglomerate might not only involve the export of underpriced woodchips to parent pulp firms. It can also involve the concealment of corporate profits or funds in wood-supplying subsidiaries.[78] The very recent and rapid share price collapse of Toronto Stock Exchange-listed Sino-Forest company, a plantation operator in southern China, upon release of a short seller's report which accused the company of fraud and of being, in effect, a ponzi scheme, would again appear to underscore the significant constraints with corporate governance and transparency in the Chinese and Southeast Asian forestry sector (Globe and Mail, 2011; Financial Times, 2011 a, b)

Whilst both Oji and Nippon Unipac are located in the top ten global forestry and paper companies, their 2007 results for return on capital employed (ROCE) of 2.3% and 2.1%

[78] Indeed, with respect to Asia Pulp and Paper in Indonesia, Lang (2008: 51) writes: "CIFOR's researchers, Romain Pirard and Rofikoh Rokhim [2006: 9], note that the prices of wood supply to APP's pulp mills increased in a "spectacular way" from 2001 onwards. APP explains that this is because the company is increasingly using plantation wood, which is more expensive than clearcutting natural forests. Pirard and Rokhim point out that the mills have transferred tens of millions of dollars to the wood suppliers in recent years and that a more convincing reason for the wood price hike is the fact that during the 1990s APP attracted investors by advertising the company's access to very cheap raw materials from native forests. After 2001, the agreements were changed: presumably so that the profits were transferred from the pulp mills to the wood supplier companies. Although the wood supplier companies are also controlled by the Widjaja family, they do not owe vast amounts of money to international investors."

respectively, and 2006 results of 3.2% and 1.7%, places these firms significantly behind international industry leaders, and likely even further behind the potential ROCE available for investors in other industrial sectors. Oji Paper's major pulp and paper expansion project into the fast growing mainland China market near Shanghai at Nantong holds the potential to place this company as the undisputed sector leader amongst Japanese paper firms. If the venture proves successful this would also place Oji in an advantageous competitive position vis-à-vis other global pulp and paper firms who are also attempting expansion investments in China, including Asia Pulp and Paper, Asia-Pacific Resources International, Stora-Enso, UPM Kymmene, International Paper, and others. The risk is of course, is that the breakneck pace in overall pulp capacity expansion in China will lead to industrial overcapacity, an over-supply of the market, and price crashes, leading to expansion delays, mill closures, falling profits and reduced share price. These inter-firm competitive dynamics between globally integrated companies concerning their China positions are a key factor influencing the geographical expansion of plantation and wood pulp global production networks into the Southeast Asian region, and indeed elsewhere.[79]

[79] On restructuring in the Japanese paper sector, PWC (2007: 19) write: "Significant consolidation has already occurred and in all the main paper grades, the top five players, all domestic, control between 70% and near 100% of the market. However, this has not been enough to boost performance and measures to solve overcapacity have been limited, even as the problem has been made more acute by the steady erosion of domestic and regional market share by Chinese producers. In effect, a position of near stalemate had developed as the major players watched and waited for their competitors to make the first move. All major Japanese companies, quite often through the giant trading houses, have used overseas markets to secure fibre supplies for many years. However, moves to build or acquire paper production overseas, and hence secure new sources of growth, have been more limited. In short, the Japanese pulp and paper companies have played a limited part as the global FPP industries realign."

As part of its globalization strategy, in 2004 Oji Paper embarked upon an ambitious plantation development project in Laos, through a joint venture arrangement with the Government of Laos, in the form of Oji-Laos Plantation Forestry Limited (LPFL). The projected eucalyptus/acacia wood fibre supplies generated from this project, approximately 450,000 bone dried metric tonnes of hardwood woodchips per year, is likely to represent a significant component of the overall supply strategy for Oji's large scale manufacturing expansion underway at Nantong, China.[80] As online pulp industry website Paperloop.com (2005) pithily summarized: "…Laos is one of the most suitable regions for plantation businesses due to its geographical advantage as it is at a short distance from Japan, the current point of demand, and China, where the demand is expected to grow in the near future."[81]

The Government of Laos itself has ambitions plans for expanding the fast growing high yielding (FGHY) tree plantation sector, using eucalyptus and acacia as planting stock. Some promoters such as the ADB have portrayed this industry the vehicle for turning

[80] A 700,000 tpy pulp mill would require approximately 3.15 million cubic meters RWE of wood per year. The conversion ratio between green logs to woodchips depends on whether the bark has been removed (as it needs to be) as well as the moisture content of the logs (i.e. how long it takes to get the logs shipped to mill gate). But using a conversion ratio of 1.8 cubic meters RWE wood under bark to 1 BDMT of woodchips (Sun *et al*., 2004), Oji's pulp mill would require a supply of about 1,750,000 BDMT of woodchips annually. So the Laos LPFL plantation project could potentially supply about 25 per cent of the Oji-Nantong pulp mill's annual wood requirements.

[81] Notably, if the China-Nantong pulp mill startup date of late 2012 is delayed, and if Oji's wood supply and cost configurations shift, the company could still of course utilize the maturing timber from its holdings in Laos for other, non-core operations, in an alternate strategy to generate positive financial returns. This could include developing value-added manufacturing options within Laos (e.g. processing the logs into woodchips, sawnwood or veneers), and/or otherwise selling the timber to external buyers. Over the medium to longer term however, it seems more likely that Oji LPFL's and Oji South's wood production in Laos would enter into core firm pulp and paper wood supply streams.

Laos into a new 'Finland-by-the–Mekong'. While forestry sector master plans have been tabled before for Laos, heretofore without much success, industrial capacity expansions for the south China pulp and paper manufacturing sector, and the new reality of Asian wood supply and demand scenarios, provides these ambitions with a new credibility.

These are the actors, institutions and resources which combine in a 'strategic coupling' between external investors and specific resource assets in Laos. As Bridge and McManus write (2002: 11) such strategic couplings are "contingent on the intersection of cultural, political, and economic conditions rather than a necessary product of the logic of accumulation." I have established the competitive and geographical logics of accumulation in global and regional forestry and pulp sector above. A number of key cultural and political conditions behind strategic coupling will be further developed in the next chapter, focusing on the Lao state's role in directing plantation investment in that country.

Oji's Lao supply strategy and their joint venture agreement with the Government of Laos through LPFL, can provide an illuminating case study to understand new firm-state dynamics in the Lao plantation sector, and show how resource commodity networks are territorialized and how this produces new patterns of forest-land enclosure. As will be more closely examined, issues of state regulation, the importance of resource rents, and indeed the materiality of eucalypt and acacia trees themselves, represent important question areas for understanding contemporary nature of capital transformations.

3.4 Discussion- Global Production Networks and Plantation Forestry in East and Southeast Asia

Global resource commodity and production networks can be a useful analytical heuristic which connects complex forces and cycles of industrial restructuring in the core areas of the world economy, to trajectories of rural development, environmental transformation, and resource governance in local sites in the global South. Framing my theoretical analytic in terms of a global commodity chains and global production networks approach facilitates this more detailed treatment, as opposed to, for instance, a regulationist approach to understanding the dynamics of political-economy in forestry (see *inter alia* Aglietta, 1979; Bridge and McManus, 2000; McManus, 2002). While regulationists would focus upon a 'meso-scale' understanding of the linkages between an accumulation system and a mode of social and discursive regulation within a specific economic sector, this discussion also proceeds down to the level of firm-based competitive raw material supply and expansion strategies, as well as firm-state relations.

This chapter presented some degree of quantitative data on fibre supply options and strategies for pulp mill expansion projects, and related how these assessments are integrated (or not integrated) into industrial decision-making processes. In taking this approach, I am aware of Bridge's (2001) critique of what are called "naïve geographies" (see also Coe, Kelly and Yeung, 2007). Here, Bridge (2001: 2154) remarks on the need for critical economic geographers to:

> "…move beyond 'naive geographies' that explain commodity-supply zones by reference to resource endowment alone, and understand commodity-supply zones as social artifacts, spaces actively produced through the contested processes of the cultural political economy."

I agree with the need for a relational approach to conceiving of primary commodity-supply zones as "material-semiotic spaces" (Bridge, 2001: 2154), and this is explored in the next chapter. Yet, without an understanding of how forestry and paper companies approach questions of industrial expansion *on their own terms,* the danger is that analysis will collapse into discursive critiques, with a diminishing relationship to forces and events in the realm of production. Indeed, critical geographers have tended to repeat the (albeit very valuable) constructivist idea that, for instance, "…raw material supply zones are constructed by expert discourses" (Bridge, 2001: 2154), but with only partial appreciation of why those experts are constructing certain sites as supply zones and not others, and through what rationalities and logics they are doing so. The advantage of a comparative GPN framework, as Coe *et al.* (2004: 476) note, is that it "…helps us appreciate better the critical mechanisms through which *some* regions gain developmental momentum whereas other regions miss the opportunity."[82]

The core of the analysis presented here was upon how competition amongst large capitalized firms for secured access to raw material supplies represents an important shaper of inter-firm competitive relations, profits and expansions. The second key

[82] As mentioned, I take a more critical perspective on pulp sector GPNs as a 'development opportunity'.

dynamic I investigated— expanded more fully in the next chapter— involves the articulation of firm-state relations in the plantation sector, as mediated through the activities of different institutions, and as linked to the capture of value and resource rents in the forestland concessions process.

This chapter has outlined how the restructuring of the global wood pulp production network has proceeded over the past decades. I have explicitly drawn linkages between underlying global forces of restructuring, and competitive inter-firm dynamics, with attention to the regional Chinese and Japanese forestry and paper sectors. In Japan, these dynamics have encouraged the leading integrated pulp firms to shift towards an offshore manufacturing and plantation development strategy, to take advantage of enhanced opportunities for profits and returns on capital investment in the booming Chinese economy. Narrowing the focus to the restructuring of Oji Paper, I then examined how this firm provides an interesting case study in the regionalization of both manufacturing and in the strategic sourcing of raw materials to supply core economy corporate growth.

This discussion of the dynamics involving the forestry and paper sector highlights a series of important points for developing a critical and combined economic geography and political ecology of forestry in Southeast Asia. Globalizing forestry companies, such as Oji Paper, compete with other major firms for advantageous positions in high return markets (such as in China), and in countries where raw material supplies can be sourced on inexpensive terms (such as in Latin America, Australia, and Southeast Asia). The

relative advantages of the industrial strategies of different firms is (usually) indicated in terms of corporate share price performance, by return on capital employed, as well as in the ability of firms to raise financial capital and undertake new expansions or acquisitions. In a form of 'strategic coupling' (Coe *et al*., 2004), forest-land assets in producing countries (for example in Laos) become articulated with large-scale East Asian capacity expansions in pulp production.

I have also shown that while forestry and paper companies are responsive to these economic logics of fibre supply, industrial expansion, and profitability, these relations are not just economic, but also significantly *political-economic* in nature. State governments and international financial institutions become closely involved in inter-firm competitive relations, providing subsidies and other incentives, facilitating access to various kinds of resource rents, and formulating the regulatory architecture at state and international levels. At times, the ineffectiveness or absence of state legal-regulatory structures can completely overturn the economic system of incentives in favour of the political (the prime example being APP's massive corporate debt defaults in Indonesia, even while the company was embarking upon major capacity expansions in China). Thus, while there are strong neoliberal logics guiding the globalization of the forestry and paper sector, this is context dependent and in some cases very illiberal forces are dominant.

My use of the global production network framework represents an attempt to extend and broaden chain-oriented commodity research, through integrating key processes including:

a) a regulatory political-economic environment; b) forms of inter-firm and firm-state competitive dynamics and c) territoriality and nature. A core advantage of the GPN literature over previous commodity chain studies is that these scaled dynamics are incorporated systematically into the analytical framework, even though some researchers working from outside of the discipline of geography such as Gellert, (2003, 2005, 2007), and Neilson and Pritchard (2009), have developed something that is close to a GPN-type analysis, without framing it as such.

The example of Oji Paper's China and Laos overseas investments provide an excellent opportunity to analyse the political-economic construction of a pulpwood GPN. Oji Paper is involved in intense competition not only with other domestic Japanese firms, but also with other globalised forestry and paper companies. Crises in profitability in Oji's home market have spurred expansion plans into East Asia (for manufacturing) and Southeast Asia (for wood supply), in the process developing a global production and manufacturing capability. The ways in which companies become linked to state programs and policies, even entering into joint venture deals with state agencies, indicates the importance of integrating firm-state dynamics into commodity studies in a much more systematic way than has been the case in many global commodity chain studies.

Understanding the ways in which nature plays an important role in the neoliberal restructuring of the global forestry and paper industry is also an advantage of the GPN perspective. As my analysis clearly shows, competitive pressures are pushing the global

and Asian regional pulp industry towards intensively managed fast growing tree plantations. Companies and supply regions use the intensification of silvicultural techniques as a way to increase their profitability— and it is notable that this is not something at which all companies or countries are equally successful. Companies based in Brazil in particular seem to have a significant advantage, for reasons that include the quality of the climate and land available (flat, good soils, ideal climate, plantations located close to transport infrastructure). But it is also the techniques of companies based in Brazil that allow them to reach up to the global standard of 40 plus cubic meters per hectare per year. This highlights how, as discussed in Boyd *et al*. (2001) and elsewhere, in its neoliberal form capital begins to flow *through* nature and use the material properties of biological industries as a source of profitability. Yet, I have also shown how in other jurisdictions, the industry takes on a more extractive and fully rent-seeking character— with competitive pulp mills in Indonesia reliant upon what is often illegal or quasi-legal access to natural mixed tropical hardwood forests to feed their pulp mills.[83] The GPN framework explicitly facilitates this attention to nature and to territoriality in commodity systems.

Close attention to the ways in which nature is subsumed within the pulp sector can also inform our understanding of what is 'neoliberal' about contemporary restructuring in this

[83] This situation in Indonesia with mixed tropical hardwoods used to feed the Sumatran mega-mills of APP and APRIL cannot last much longer, as the surrounding supply of degraded natural forest is being completely depleted. Both these companies are thus currently developing their fast growing plantation base, although they continue to capture rents through illegal /underpriced access to plantation land— which has often been enclosed from local community tenure.

industry and what is not. Certainly, the intensive focus on privatization and commodification of land, and the development of hybrid clones of acacia or eucalyptus as a fast-growing supply source, would be consistent with the 'neoliberal nature' framework (e.g. Heynan *et al.* 2007). Flows of global investment into new 'frontier' locations is also consistent with the overall spread of neoliberal market relations into former socialist bloc territories. Yet, there are other aspects to this industry which are much less aligned with neoliberal ideology, for example the continued reliance in some jurisdictions upon illegal access to wood or land, or, China's heavy use of preferential state supports and subsidies. Certainly there is no pure form of neoliberalism operating in this industrial sector, and if there is an economic rivalry between the neoliberal, market state-backed, or fully illiberal models in this sector (for example, on the relative advantages of divestiture of timberland ownership for pulp and paper sector corporate performance), the competitive outcome has not yet been determined.

Integrating and modifying insights from the geographical literature on global commodity chains (GCCs) and global production networks (GPNs), the chapter developed an analytical framework for understanding the underlying, regional and global political-economic drivers of forest-land commodification, enclosure and displacement in contemporary Laos. What this analysis points to is how commodity networks are always inherently spatial, and as such are interwoven into the territorializing practices of development in numerous ways. In the next chapter, I proceed from an analysis of the

global and East Asian regional dynamics, to a national-based study of GPNs, strategic coupling, and the production of a relational resource frontier in Laos.

Chapter 4: Laos and the Making of a Resource Frontier— Strategic Coupling in the Plantation Sector

> "The critical purpose is to apprehend the relational character of the units included in the making of the modern world, not to multiply their numbers as independent entities… From the perspective of the periphery of the capitalist system, however, it is necessary to recognize the centrality of land as an active social force of ongoing economic significance and remarkable political eloquence."
>
> Fernando Coronil (1997: 61-62)
> 'The Magical State'

4.0 Introduction

The previous chapter established a series of key global and regional economic logics governing competitive inter-firm relations and fibre supply strategies in the global-regional forestry and paper sector. A specific conceptual aim of this chapter is to develop an understanding of the mechanisms through which global commodity chains and production networks become grounded in space, scale, and territory (Leslie and Reimer, 1999; Murdoch, 1999; Bridge, 2001; Hughes and Reimer, 2004). In continuing to build a global production network (GPN) analytic, this chapter further engages with Coe *et al.*'s (2004) conception of 'strategic coupling', between transnational firms, and state actors controlling specific resource assets (Bridge, 2008; Yeung, 2009). In the phrasing of Coe *et al*. (2004: 471): "…economies of scale and scope embedded within specific regions are only advantageous to those regions – and bring about regional development – insofar as

such region-specific economies can complement the *strategic needs* of trans-local actors situated within global production networks." [84]

What the GPN framework usefully brings to the fore are the territorial logics of global commodity production and the complex relations between resource commodity systems and the state. The GPN approach aids in situating why certain transnational resource corporations make specific investment decisions in particular sites, as well as how these investments are made possible though active policy and regulatory measures and incentive structures formulated by national governments. Here, it is important to note that in many Southern countries, including Laos, 'the state' can be understood through the optic of stratification and trans-nationalization (e.g. Goldman, 2001). [85] That is, major development banks, bilateral donors and global NGOs can become closely linked into state institutions, and often play a key intermediary role in strategic coupling. An analysis of transnationalized states needs to be carefully described and situated however, as it is also possible to overstate the influence of international donors and development actors, even in so-called 'weak' states such as Laos (e.g. Barney and Hodgdon, 2008).

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[84] There are parallels between Coe *et al*.'s (2004) notion of strategic coupling, with Bayart's (1999) framing of 'state extraversion'. For Bayart, extraversion describes how dependent states mobilize resources through unequal engagement with external actors; which establishes the conditions for "…the creation and the capture of a rent generated by dependency and which functions as a historical matrix of inequality, political centralization, and social struggle…" (1999: p. xvii). See also Latham *et al*.'s (2001) concept of 'transboundary formations'

[85] Because of the importance of institutions such as the World Bank, the ADB, and the bilateral donors for supporting the basic budgetary positions of the Lao state and in influencing governance initiatives (and the more subtle forms of power/knowledge implicated in these revaluations of people and nature), analyzing 'domestic' government and regulatory institutions in Laos also means tracing through the influences and effects of these external agencies.

A broader goal of this chapter is to provide insights into the post-socialist development history of Laos through forestry. Examining forest governance in Laos can also form a sectoral window for understanding more broadly how nature, territory, communities, and state power in Laos are transformed through processes of commodity production. Our focus shifts toward an understanding of the functional relationships between, on the one hand, the external actors, institutions and processes of the global forestry and paper economy, and on the other, the (often quite illiberal) arrangements of state power and Lao national regulatory institutions. I argue that this will better illuminate the processes and rationalities of forest governance and regulatory reform within Laos, and provide a framework for explaining the patterns of investment, commodification, and enclosure, underway in the Lao countryside.[86]

While Chapter 3 introduced the economic logics that guide competitiveness and firm behaviour in the forestry and paper sector, this chapter further situates how actually existing investment projects are also politically constructed, and how strategic couplings in the forestry sector are formed out of a highly *political* economy (Gellert, 2003). Deployments of state institutional power play a key role in this. A GPN approach also provides helpful adjustments to analytical perspectives that seek to explain the role of the developmental state as a kind of self-contained, political-economic system which

[86] In Chapters 5 and 6, local field studies 'advance to the concrete', through a detailed political ecology analysis of plantations, resources and community livelihoods in a village case study in rural Laos.

functions according to an endogenous developmental logic (e.g. Yeung, 2009). In Laos, due to a number of reasons, including the relative absence of a domestic capitalist class, the promotion of transnational foreign direct investment has been a core component of the formal state development strategy. Thus, the relationship between the Lao state and external investors (including state-backed investors from neighbouring countries) is particularly crucial for understanding Laos' development policies and options.

Strategic couplings and articulations between resource sector GPNs, local resource assets, state/donor agencies, and rural communities, can also be situated in terms of a broader geographical-political canvas— which entails moving beyond the network metaphor. I have previously situated the spatial-territorial aspects of Laos' development context through the idea of a 'relational resource frontier' (Barney, 2009). As geographers including Harvey (1982), Massey (1984), Smith (1984), and Glassman (2007) have argued, the geographical expansion of capital through the incorporation of new territories, natures and people, previously external to capitalism's core geographies, represents one of the potential 'spatial fixes' to capital's limits. In this chapter I outline the characteristics of Laos as a resource frontier, and locate its functional rationality for global production networks through the idea of accumulation by dispossession (De Angelis, 2004; Harvey, 2005; Hart, 2006; Glassman, 2006). I highlight in particular how dispossession on the Lao frontier opens new options for rent seeking by resource firms and Lao state organizations (Ross, 2001a, Gellert, 2003). In this sense, the Lao resource

frontier can be considered as the broader political-territorial context through which network-based firm-state strategic coupling and rent seeking operates.

In grounded terms (i.e. as related to land and nature), the form of accumulation through dispossession I describe occurs primarily through the use of coerced displacement, and through the reworking of local customary property systems and the re-scaling of village spaces as state territory (Blomley, 2003). The practical methods through which this occurs includes the blurring of legality and illegality in frontier contexts (De Angelis, 2004; Tsing, 2005), and through the structural underfunding or re-regulation of environmental monitoring systems which allow for enhanced rates of profit (e.g. Prudham, 2005; Dauvergne, 2001). A heady mixture of processes and mechanisms of accumulation through the environment—not all of them of necessarily 'capitalist' in origin (Hall, 2004)— can be present in the contemporary Lao resource sector. This can produce sharply negative social-ecological consequences. In Laos, rural and upland farmers, and a nascent plantation labouring class, have rarely benefitted from these changes, even as local environments become increasingly enclosed and degraded.[87]

My key argument in this chapter is that there is a strategic functionality to frontier territorial assemblages in Laos, which often fit with the accumulation interests of resource

[87] A recent World Food Program (2007) report asserts that Laos' indicators on child nutrition are *below* prototypical 'failed states' such as North Korea and the Congo. See also Johnson, Krahn and Seateun (2010) on the importance of forest and aquatic wildlife as a crucial source of nutrition for upland villagers.

firms. I show how strategic coupling in the plantation sector is intertwined with processes of accumulation through dispossession and rent-seeking on the Lao resource frontier, although due to its instability, I also present the territorial and political-economic logics of frontier contexts as multiple, unpredictable, and at times conflicting.

The rest of this chapter proceeds in four main sections. The first section provides context for understanding the evolution of 'post-socialist' Lao state policy towards the promotion of resource sector foreign investments through the past two decades. I then develop in more detail the case study introduced in Chapter 3, regarding the firm-state relations between a major, external forestry and paper firm (in this case, Japan-based Oji Paper) and the Government of Laos (GoL). The key role of different intermediary development actors, such as development bank institutions and civil society groups, are also shown as occupying an important role. I use the case of Oji Paper's investment pulpwood project in Laos as an entry point to locating how resource sector GPNs become territorialized, and how GPNs become linked with external and internal institutions, state regulatory frameworks and policy reforms. Lastly, I provide a broader assessment of plantation investment activity in Laos, from the perspective and logics of the creation and capture of (at times, windfall) resource rents by resource firms and state actors.

Coe *et al.* (2004) understand strategic coupling between global production networks of firms and regional economies as a key driver behind regional development, through

processes of 'value creation, enhancement and capture.' In Laos, I argue that the overall result of resource sector activity is less a virtual spiral of nature-based industrialization and development, as much as the re-production of a contemporary 'resource frontier'. Strategic coupling has reproduced spiraling negative patterns of investment, enclosure, uneven and rapid capital accumulation, and ecological degradation. Considering the broader context of resource development in Laos in terms of a resource frontier is also useful in that it helps to conceptualize how global capital seeks out new peripheries in which to expand (the "spatial fix", Harvey, 2001), and the ways in which ambiguous tenure rights and contests over authority characteristic of frontier areas feeds a situation of rapid enclosure and accumulation through dispossession. The perspectives I present on strategic coupling and regional development are therefore less celebratory than is implied in many other GPN studies, which have typically focused on value added manufacturing clusters, and have adopted a less critical interpretation of development's ecological and social contradictions (e.g. Yeung, 2009).

We can set the stage by tracing through some of history of forest sector policy in Laos, and by examining the origins and implications of the post-millennial Lao plantation concessions boom.

4.1 Situating Forest-Land Governance in Laos

The history of external involvement in modern forestry goes back to the post-war period in the mid to late 1970s, to a range of efforts by the Soviet bloc countries and by Swedish-SIDA. These early efforts were largely oriented towards enabling the Lao government to extend its control over its internal periphery, for the purpose of harnessing its timber producing potential. Forests were key economic assets of the new communist Lao regime; the raw materials that would be used for repaying war debts to Vietnam and the Soviet Union, for generating foreign exchange, fueling national economic growth, and building a new socialist state. Laos of course required assistance with building the roads, and importing the logging machinery, and wood processing infrastructure to profitably access, process, and export these forest resources. From 1975 to 1989, socialist bloc geo-political alliances represented the primary means by which the Lao Government sought to realize this objective.

In the communist political system established in Lao PDR after the revolution of 1975, nine state forest enterprises (SFE's) were allocated logging concessions over various parts of the country. Each of these concessions managed approximately 200,000 to 300,000 hectares. Due to Laos' precarious economic situation (and lack of actual logging machinery), each SFE was matched with a supporting country or donor, from the Soviet bloc, Sweden, and the ADB.[88] During the SFE era, which ran to the late 1980s, the key

[88] The SFE-donor cooperation matches were: as follows— SFE 1: Borikhamxai (Sweden); SFE 2: Savannakhet (Vietnam); SFE 3: Vientiane-Borikhamxai (Hungary in 1979, with Sweden taking over in 1981); SFE 4: Khammouane (Soviet Union); SFE 5: Khammouane (Bulgaria, who did not arrive, then

problem in Lao forest governance was less related to concerns of overharvesting, corruption or maintaining ecological sustainability. Rather, the primary focus for improving the conduct of forestry in 1980s, for both donors and the government, was how to *increase* the rate of timber extraction, from what was viewed as a vast and underdeveloped forest hinterland.[89] Other key priorities involved the development of wood processing facilities and joint venture enterprises (Keating, 1989).

In ecological terms, Lao forestry was interpreted through a perspective of abundance and inaccessibility, as opposed to decline and scarcity. Available SIDA and ADB donor reports of the time noted that even the rudiments of scientific forestry in Laos were in effect absent. There were no forest surveys, inventories, or forest regeneration initiatives being conducted by the Lao SFE's (Stang, 1983).[90] While training in inventories and forest surveys comprised part of donor support to the SFEs, overall the loan programs were heavily weighted towards providing the required machinery, training and infrastructure for forest harvesting and wood processing (Moreno, 1992).

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transferred to Soviet Union); SFE 6: Xayaboury (2 visits by Czechoslovakia, later logged out by the HIPA-Lan Xang Forest Resource Development concession after 1993); SFE 7: Savannakhet (Soviet Union); SFE 8 Champassak (Poland, although the Polish delegation did not arrive); SFE 9: Vientiane (Asian Development Bank, parts of SFE 3 were also included) (Jozsef Fidloczky, personal correspondence, April 13, 2008).

[89] In 1986 a Swedish-GoL seminar was held on the issue of timber exports. The report noted the discouragingly low production statistics from state-owned Lao forestry enterprises, and called for an explicit policy aimed at increasing the rate of timber harvesting. Between 1980 to 1984, a yearly average of only 4,300 m^3 of logs and 6,000 m^3 of processed wood was (recorded as) exported from Laos, earning a meager USD $3.3 million/year for the Ministry of Finance (SIDA, 1986).

[90] It is important to recall that in 1975, when the Pathet Lao assumed national power, there were only three trained foresters in the country.

A project completion report by Mordeno (1992: 10) on ADB's support for logging activities in SFE 9 in Vientiane province, noted confusions and overlapping claims to territorial jurisdictions between the Lao central government and the provincial and local authorities, where he wrote: "The sad plight of SFE 9 would appear to be a result of the continuing conflict between the central and local governments concerning utilization of natural resources." This political tension in Lao forestry, between central authority and provincial/local control, and a non-transparent, discretionary system for allocating timber quotas (Walker, 1999; Anonymous, 2000), is one that persists to the present.

1986 was a watershed year in communist Laos, marked by the announcement of the New Economic Mechanism, (or "New Thinking" policy) which advocated state sector reform and liberalization. This was amongst the first market reform policies passed in the socialist bloc countries, and it would have a dramatic effect on the forests of Laos, particularly when combined with the announcement of a logging ban in neighbouring Thailand, in 1989, and restrictions in Vietnam's annual harvest in 1991.[91]

By the time of the Lao Tropical Forestry Action Plan studies in 1990, studies recommended a sharp lowering of the annual industrial harvest in Laos, down more than 50 per cent to 280,000 m^3. More generally, descriptions of the 'state of Lao forestry'

[91] In early 1988 the GoL attempted to enforce a log export ban, and later in the year imposed a heavy export tax on unprocessed forest products, in an attempt to promote domestic wood processing. TFAP consultants advised against these measures as counter-productive for state revenue generation (e.g. Keating, 1989).

began to take on their current tenor. For the first time, both the Western donors, as well as a new regional environmental civil society (based largely in Thailand), began to speak of forestry in Laos as in a state of crisis. Contestation between the external donors, the central ministries, the SFE's, the provincial administrations, other sub-national actors, as well as logging interests from Thailand, continued into the 1990s. As the majority of the forest resources in the SFE concessions were completely logged out before they were disbanded (Jozsef Fidloszky, pers. comm., 2009), the conduct of Lao forestry in the 1990s focused on the newly accessible forests which became available through improved road access and new infrastructure projects— especially involving hydropower projects, as well as in the new, donor-supported Production Forest Areas (PFA's).

By the late 1980s, the Lao military was exerting more control over the increasingly lucrative logging industry. After the dismantling of the SFE system (at the urging of the donors), much of Laos' logging industry eventually became consolidated within three, powerful military companies, which conducted most of the logging through the 1990s. These three firms, controlled through the Ministry of Defense, were: the Mountainous Areas Development Company (*Bolisat Phatthana Khet Phoudoi* – BPKP), which operated in the central provinces of the country; the Development of Agriculture and Forestry Industry Company (DAFI) in the southern provinces; and the Agriculture and Forestry Development Company (AFD) in the north. These military companies, which also held other commercial interests including sub-national monopolies in mining and

fuel imports, were the amongst the strongest development actors on the ground in Laos through the 1990s, and it is claimed that they were operating outside of the control of the Ministry of Agriculture and Forestry (MAF) (Anonymous, 2000). Cornford (2006: 15) for instance notes that: "Conflict between provincial governors and DAFI over logging rights [in southern Laos] was reputedly the cause of the arrest and imprisonment of the governor of Attapeu in the middle of the [1990s] decade."[92]

In the central region, General Cheng Sayavong's BPKP company entered into joint venture partnerships with external industrial partners, and established a large plywood factory in Lak Xao, Bolikhamxai (Anonymous, 2000: 18). BPKP was initially established in 1984 as a business interest of the Lao People's Army. As aid from the Soviet Union fell at the end of the Cold War, and as military budgets were reduced, BPKP expanded into other resource sectors including mining, construction, tourism, import-export and shipping. At its height, BPKP managed up to 60 companies under its umbrella, many of which had monopoly control over particular sectors of the Lao economy, although its' logging empire accounted for the majority of its revenue. By 1995, BPKP reportedly had an income approaching US$40 million a year (Stuart-Fox, 2008). However there were also major financial irregularities within the company, and financial losses and non-performing loans mounted. In 2002 BPKP was removed from the control of the Ministry

[92] Anonymous (2000: 17) wrote: "The power of the military companies in the logging sector was cemented in 1994, by a Prime Ministerial Order which effectively gave them control over the logging quotas within their areas of interest… This marginalized the Department of Forestry…"

of Defense and placed under the supervision of the Ministry of Finance. The restructuring and splitting of the company was supported by a World Bank International Development Association (IDA) structural adjustment and macro-economic reform program that focused on the reform of deeply indebted/non-performing State Owned Enterprises.[93]

The 1990s would also see a continued and wide discrepancy between, on the one hand, enactment of legislation and issuance of guidelines for sustainable forestry, and on the other, the ability of the Lao MAF to actually control resource development activities on the ground. The 1990s were also the peak export boom years for the logging industry in Laos, with Thailand as the main customer. Barter trading of timber for infrastructure development projects was also common, particularly in provinces with valuable forests alongside the borders with Vietnam and China (Anonymous, 2000).

In 1991, the first methodological guidelines for national forest inventory and sustained yield forest management in Laos were produced (Makarabhirom and Raintree, 1999). 1991 also saw the attempted implementation of a central logging ban, although this had little effect on actual rates of harvesting in the provinces. Ohlsson and Inthirath (2001) records that the development of legal regulations and decrees began in earnest in Laos in 1992, and the first major revision of the national Forestry Law was completed in 1996

[93] One consultant wrote: "Given the complicated structure of the business portfolio, the origination or cause for non-performance [of BPKP] was not clear. However, it is widely believed that several of the companies within the business portfolio had been under-performing and substantially subsidized by the some of the core firms for extensive periods." (Anonymous, 2002).

(the first change since the French 1954 Forest Law). By 1994, the Lao-Swedish Forestry Project was operating a medium-scale Joint Forest Management project in Savannakhet province, and in 1996 the World Bank launched their major 'village forestry' initiative in Laos— a US$20 million Forest Management and Conservation Project (FOMACOP). The 1996 Forestry Law restricted the harvest of timber to surveyed and inventoried production forest areas, with an approved management plan. In reality, with the exception of the FOMACOP village forestry areas, a perhaps small number of other sites associated with development assistance projects, production forest areas were not mapped, and no forest inventories had been completed in the country. That is, the basic preconditions for scientific sustained-yield forestry were absent in most of Laos (and largely remain so).

Later in the 1990s, the central Ministries began to re-assert control over logging, away from the military and back towards the provinces. Trade with Vietnam also began to play an increasingly important role in the lucrative southern Lao logging industry at this time. Cornford (2006: 15) writes:

> "Allocations for logging quotas were shifted back to the provinces, theoretically under much closer direction from the Ministry for Agriculture and Forestry in Vientiane…From 2000, the southern provinces, particularly the eastern provinces of Xekong and Attapeu, turned increasingly towards closer economic ties with Vietnam, and as part of this strategy, granted extensive concessions to Vietnamese logging companies."

The restructuring of the insolvent BPKP signaled the decline of direct military control over logging and wood enterprises in the key timber producing province of

Khammouane, and the increasing control by central and provincial administrations.[94]

It is difficult to confirm the extent to which any military-linked resource control remains in place in the southern border regions of Laos. Based on interviews with forestry officials, FAO and TNC (2008: 7) notes: "Though over the past five years, military companies have become less powerful than they were in the 1990s, the Army still controls all logging and forestry related activities in the border zones, often in joint operations with the Vietnamese military." However, in their recent studies of the southern Laos timber trade, To Xuan Phuc (2009) and Baird (2010b) do not emphasize the role of Lao or Vietnamese military units in logging operations. To Xuan Phuc (2009) instead focuses upon new of Vietnamese industrial capital, and an imported Vietnamese labour force, in spearheading the joint venture logging and wood processing industries of southern Laos.

In many ways, the history of state organized natural forest management in Laos has been the attempt to expand the state's (or the military's) extractive reach. Much more haltingly, there have been to moves towards scientific, sustained yield forestry, and a market-oriented governance framework. While the GoL continues to move in the general

[94] Whitington (2008: 86) notes the historical power plays behind the BPKP logging empire: "General Cheng's fortune and private army was amassed first, through IMF rules in the late-80s that made provincial government budgets depended on the military timber monopolies, and second, by the World Bank's concession to BPKP to log the inundation zone of Nam Theun 2." Even with the IMF's and World Bank's contradictory roles in first facilitating and then dismantling the BPKP, Whitington argues that after BPKP's restructuring in 2002, "… new timber empires simply moved into the void."

direction of these priorities, it has largely resisted devolving significant control or revenues from forestry to local communities. The MAF has generally sought to deflect or dilute the influence of donor agencies in this area, while nearly always accepting new donor projects that are ostensibly aimed at establishing a governance regime based on sustainability and local poverty reduction. At the same time, the relative economic significance of the natural forest timber industry in Las has been steadily declining. The annual revenue accruing to the government budget from nation-wide timber sales (derived from Production Forestry as well as timber from infrastructure development) was recently estimated in the range of US$57 million (Puustjarvi, 2007) – representing roughly 12 percent of overall government revenue at that time, although given the lack of financial transparency in this sector these figures could be underestimates.

With the growing extent of heavily logged over forestlands in the country, there has been significant emphasis in recent government policy towards plantation establishment. Plantations on degraded forestland fit with a number of state priorities, including stabilizing land use, and the promotion of commercial agriculture and forestry production in upland areas. In the past five years, the continued expansion of key regional economies including China and Vietnam, the emergence of a global commodities boom, and controversy around the 'land grab' phenomenon, has placed Laos on the front line of debates concerning large-scale agribusiness and plantation land acquisitions, and local land rights.

Foreign Investment into the Lao Plantations Sector

As recently as 2003, a research informant from a Thai pulp firm remarked disparagingly in an interview regarding Lao forestry and investment policy, and presented a dim view of the Government of Laos' (GoL's) ability and commitment to extend the required institutional and regulatory framework for supporting a major external FDI plantation and potentially, a large pulp mill project. Much has changed in recent years. Recent available data shows a significant upward trend in the number and the value of plantation and agri-business sector FDI decisions in Laos. Many of these concession projects are well on their way to becoming realities on the ground. Laos' forestry-land sector is thus in the midst of a transformation from the harvesting and export of unfinished or semi-finished natural wood products (especially logs and sawn wood), towards the establishment of more commoditized, intensively managed plantations of industrial tree crops, and highly capitalized forms of export-agricultural-forestry production. This shift is being accompanied by a parallel political transition, from a system dominated by decentralized, provincial and military-led forms of territorial-resource control centered upon extractive logging, towards a more centralized arrangement, based upon regional-global directed foreign investment into capital intensive plantations, mining and hydropower projects, often organized into concession based territorial enclaves.[95] Here I lay out the regulatory

[95] *More* centralized does not mean *fully* centralized. Despite the creation of a National Land Management Authority in 2006, provincial, and even district authorities still hold considerable power in allocating and negotiating land concession deals with external investors (e.g. see GTZ, 2006; NLMA, 2009).

context for a better understanding of how strategic coupling and foreign investment in the Lao plantation sector works.

The national target for industrial tree plantations, as stated in Lao policy frameworks, strategy, is for 500,000 hectares by 2020. According to Sugimoto (2009: ii), the areas planned for tree plantation development by investors was already projected to reach 438,000 ha by 2010, including 228,000 ha of rubber and 151,000 ha of industrial timber species (eucalyptus, acacia, teak). Current estimates from the Ministry of Planning and Investment place the total area of rubber alone in Laos at 400,000 hectares as of 2010 (Vientiane Times, 2010).

Key foreign investors and projects currently proposed or operating in the Lao plantation sector include:

- Oji Lao Plantation Forestry Ltd. (Japan): 50,000 hectares, 49 m USD
- Oji Lao Plantation South (Japan): 30,000 hectares
- CITYLAND Resources (Malaysia): 3,500 hectares, 11 m USD
- Daklak Rubber (Vietnam): 10,000 hectares, 30 m USD
- Viet-Lao Joint Stock Rubber (Vietnam): 10,000 hectares, 22 m USD
- Paksong Highland (Thailand): 26,000 hectares, 8 m USD
- Agarwood Lao Group (Thai/Lao): 10 m USD
- Mitr Lao Sugar Co. Ltd. (Thailand): 22.5 m USD
- Savannakhet Sugar Corp. (Thailand): 10 m USD

- Birla Lao Pulp & Plantations Co. Ltd. (India): 50,000 hectares, 350 m USD
- StoraEnso (Sweden/Finland): 35,000 hectares
- Shandong Sun Paper (Saen Taven) (China): 100,000 hectares
- Hoang Anh Attapeu Agriculture Development Company rubber project (Vietnam): 10,000 hectares

For plantation zoning to be legally approved, according to the Forestry Law the land in question must degraded, unstocked or barren forest-land. In Article 75 in the 2007 Lao Forestry Law, concessions up to 150 ha. on degraded forest land may be approved by provincial administrations; land concessions between 150 - 15,000 ha. may be approved by the National Land Management Authority and the Ministry of Agriculture and Forestry; land concessions of 15,000+ ha. require approvals from the National Assembly. However, numerous reports document that despite a 2007 Prime Minister's ban on land concessions over 100 ha., concessions have been allocated by various levels of the state under non-transparent circumstances, and likely circumventing the legal process (see NLMA-GTZ, 2009; NLMA *et al*., 2009).

From July 2009, there has been a Prime Ministerial moratorium on the granting of new land concessions over 1,000 hectares in Laos.[96] The moratorium followed upon an initial concessions ban, issued in 2007, on concessions of over 100 hectares,[97] which was

[96] Vientiane Times. 2009. Govt again suspends land concessions. 02 July.
[97] Vientiane Times. 2007. Govt suspends land concessions. 9 May.

repealed in June 2009.[98] Despite the back-to-back moratoria backed by Prime Ministerial Decrees, as is often the case in Laos the ban remains open to discretionary, case-by-case decision-making. Numerous concession agreements larger than 1,000 hectares have still been issued through this period, for example, the 10,000 hectare, Vietnam-backed, Hoang Anh Attapeu Agriculture Development Company rubber project in Attapeu province (see Kenney-Lazar, 2010).

A key governance issue in the plantation sector is that many of the external plantation investors have signed deals directly with provincial or even local administrations, without the knowledge or approval of the relevant central ministries. Despite the creation of a National Land Management Authority in 2006, provincial, even district authorities still hold considerable power in allocating and negotiating land concession deals with external investors (e.g., see GTZ, 2006; NLMA *et al*., 2009). The reverse also holds, with central actors at times approving investment deals without the knowledge of provincial levels of government (e.g., GTZ, 2006, Annex 11). Exceptions built into the legal statutes also appear to allow new concessions to be issued despite the national moratorium, if, for example, "an urgent case arises" (Vientiane Times, 2009).

Without systematic national level concession inventory data, it is not possible to provide accurate information on the total area of land concessions that have been granted to

[98] Vientiane Times. 2009. Govt resumes land concessions. 16 June.

investors. Several groups have published broad estimates for the total area of concession deals signed on paper in Laos. GTZ (2010) estimates that 2-3 million ha. are currently encompassed under concession agreements (including both active and not yet implemented projects), covering 10-15% of Lao territory, and UNDP has offered a figure of 3.5 million hectares.

Concessions are thus being allocated by various levels of the Lao government without either standardized, ground-checked consideration of the quality of the forest cover, or a forum for local participation. In many land concession and plantation projects in Laos, significant resource rents are up for grabs, for both private developers and well-placed officials. A key method of rent creation in strategic plantation sector investments, is via underpriced company access to 'degraded' forestland.

Firms, Institutions and 'Strategic Coupling': Oji Paper and the ADB in Laos

The Oji-Lao Plantation Forestry Ltd. project, as the first major pulpwood concession deal signed in Laos, and arguably the current "flagship" FDI pulpwood project in the country, provides a useful case study for understanding the implications of the concessions boom in Laos. My analysis highlights the key national and local policy and development issues, the role of the state and key external institutions including the ADB, and draws connections back to regional-global forestry sector GPNs. I employ the case of Oji's foreign investment in Laos as an entry point to consider how 'strategic coupling' actually

works in practice. I play particular attention to the transnational aspects of Lao state regulation around land management issues, the joint economic and political construction of markets in a high sovereign risk environment[99], and how these factors shape the eventual territorial logics of a plantations and pulp commodity network.

In Chapter 3 I showed how the global strategic interests of Oji Paper can be traced through to the competitive fibre supply and corporate profit pressures involving the firm's core operations in Japan. The firm's planned new pulp project in Nantong, China is closely linked to the company's plantation expansion strategy, regionally and in Laos. The Oji-Lao Plantation Forestry Ltd. (LPFL) concession in central Laos covers 154,000 hectares, in the central provinces of Bolikamxay and Khammouane, in a strip that runs along either side of the primary north-south transportation corridor, Route 13. Within this concession area, Oji-LPFL has secured prospecting rights to develop up to 50,000 hectares of degraded forestland suitable for plantation production. The plantations (eucalyptus and acacia hybrids) will be grown in seven-year rotations, and the mature pulp logs will be chipped, and sent via container ships from the Vietnamese ports of Vinh or Vung Ang, to Oji's facilities in China (or possibly Japan). In 2008, Oji Paper, in association with new partner Sojitz Corp., agreed upon an additional MoU with the GoL which allows for an expanded land survey and feasibility study covering an additional

[99] In 2007 Laos' Euromoney sovereign risk rating was 132. Singapore and Australia ranked lowest in Asia with scores of 16 and 18; while Burma and North Korea were ranked with the highest risk assessments of 168 and 173 respectively. See www.globalfinance.org/home.

30,000 hectares in Savannakhet, Saravane, Xekong, Champassak and Attapeu provinces— the 'Oji South' project (Vientiane Times, 2008a).[100] Oji's investments in Laos are considered by government planners to be consistent with the GoL's stated commitment to developing a viable and internationally competitive national plantation sector by 2020 (MAF, 2005).

Oji Paper purchased their primary concession in central Laos, including limited existing planted holdings of about 1,000 hectares, in 2004 from the original concession holder— BGA Forestry. Lang (2002) provides details on the history of the players involved in the BGA Lao Plantation Forestry consortium. The original BGA partners in the enterprise were comprised of a New Zealand/British Virgin Islands-based company— Brierly Investments—as well as the General Finance Corp. (Thailand), and a third Thai-based company, Asia-Tech. In addition to plantation holdings in northeast Thailand which become linked to land rights controversies, the latter firm had developed some hundreds of hectares of eucalyptus plantations, located within a 16,000 hectare concession in Laos' Champassak province in the early 1990s (see Pye, 2005). Pye, amongst others, note that in the 1990s, there were (and remain) supply side incentives for Thai plantation companies to expand into neighbouring Laos, due to the problems in accessing large-scale land parcels in Thailand, and the rising tide of protest and civil society organization against eucalyptus-linked land evictions within Thailand.

[100] At the time of writing there was no indication of the progress of the land surveying for Oji's expansion into southern Laos.

The Thai financial crisis of 1997-98 resulted in the bankruptcy of General Finance and the withdrawal of Asia-Tech from the BGA project, leaving Brierly and the GoL as the two remaining partners. Then, in February 1999 BGA Holding Asia Co. Ltd. finalized the 154,000 ha. concession arrangement with the GoL, through an agreement with the then Committee for Management of Investment and Foreign Cooperation (CPC) (now the Ministry of Planning and Investment). The GoL took a 15 per cent joint venture equity stake in BGA-Lao Plantation Forestry Ltd., held through the Ministry of Finance (Lang, 2002), in exchange for waiving any land lease or concession royalty fees.[101] The terms of the concession provide up to 50,000 hectares of zoned degraded forest land for the company, for the planting trees and related plantation infrastructure, over a time frame of 50 years. The obligations of the company are to provide a social contribution fund to project villages, of US$50 per hectare (Oji LPFL, pers. comm. Sep. 2, 2006), an amount that, spread over the length of the concession agreement, represents $1/ha./year.[102] In 2004 BGA Forestry was purchased by Oji Paper, with the GoL retaining their 15 per cent equity holding. GTZ (2006: 79) notes that at as of 2006, the planned registered capital of Oji-Laos Plantation Forestry was US$49 million.

[101] Lang (2002) writes that: "The Lao government handed over the land for the plantation rent-free in return for a 5 per cent share in the project. The government then bought a further 10 per cent share in the scheme. Under Lao Forestry Law plantations are exempt from land tax, and BGA pays only 5 per cent income tax on its operations." Unfortunately, no further corroborating information on the terms of the BGA concession agreement could be located in this research.

[102] This compensation agreement could be interpreted as an implicit recognition that the land in question is also villager's customary land. At the same time, there is no requirement for providing compensation to villagers for state forestland ceded to external investors under the Lao legal framework—i.e. the 2003 Land Law or the 2007 Forestry Law.

Back in 1997-98 however, BGA Forestry was undercapitalized, and at that time few regional investment banks would have been keen to provide loans for a risky plantation venture in socialist Laos. Moreover, the 1997-98 Asian financial crisis crippled initial interest in the Lao plantations sector. The Thai and Lao economies experienced sharp slowdowns as a result of the crisis. Inflation in Laos reached 140 per cent in 1999. Import prices increased and Lao exports declined rapidly, introducing balance of payment and debt repayment problems for the GoL (Thayer, 1999). For external investors in Laos this situation would have been highly unsettling, as they likely faced the potential for state seizure of assets, or limitations on the convertibility of funds out of the country. The Lao kip fell approximately 70 per cent in value against the dollar between mid 1997 and mid 1998, which was amongst the largest drops in Asia (Thayer, 1998).[103] In Thailand, companies were sharply scaling back investment plans, and this resulted in a sharp contraction in the interest of Thai firms for securing resource sector deals into Laos by 1999.[104]

[103] Although in Indonesia the financial crisis and devaluation of the rupiah introduced the potential for windfall profits for pulp and timber exporters selling in US dollars (Barr, 2000), the major Thai pulp producers were more focused on the domestic market, and their pulp exports were also in competition with Indonesian firms, whose currency (and therefore domestic cost structure) had fallen even more than the baht. The major Thai industrial conglomerates were also experiencing debt repayment problems for loans priced in USD (for example AA), which became the focus for share buy outs from Western and Japanese firms after the Thai/Asian financial crisis (Barney, 2005).

[104] Vietnam and China were also not major players in the Lao plantation sector at this time.

It was into this context that the Asian Development Bank was attempting to boost the Lao plantation forestry sector through the provision of project technical assistance, and loan and grant programs.[105] As the ADB played an important role in promoting external investment into the Lao plantation sector, I will examine their program in Laos in some detail.

The ADB's primary engagement in the Lao forestry sector through the 1990s and early 2000s was through the Industrial Tree Plantation Project (ITPP). This was a significant loan and grant facility aimed at transforming Laos into an efficient and competitive plantation wood fibre producer. The larger goal was to promote a national policy and institutional framework supportive of industrial plantations and international forestry investment. The argument for the emphasis upon FDI into the plantation sector was due to a lack of industrial capital or an investor class, or indeed the presence of a functioning banking sector within Laos at the time. Along these rationales, the ITPP was designed to operate from 1994-2001, although the field implementation was not started until 1997, due to initial organizational delays in establishing the credit facility. The closing date for the project was extended to 2003, in order to provide continued support to the Lao institutional partners. By its conclusion, the ITPP project involved a total expenditure of US$15.4 million, including US$10 million in ADB financing. It was to generate a 13 per cent internal rate of return, via an average annual production of 128,000 cubic meters of

[105] From the early 1990s, the typically arrangement in much of Southeast Asia was for the ADB to support plantation forestry while the World Bank focused on natural forests.

plantation wood, through 9,000 hectares of fast growing tree plantations established unstocked and degraded forestland. This, it was suggested, would generate $2 million (1993 dollars) in exports per year on a sustainable basis (ADB, 1993).

In Laos, the ADB was seeking to develop a viable market-based plantation sector, capitalizing on regional comparative advantages for low-cost land and labour, an advantageous geographical position in relation to markets in Thailand and Japan (and later Vietnam and China), and upgraded transportation corridors through the 'Greater Mekong Subregion.'[106] ITP project financing was channeled through the newly established, state-owned Lao Agriculture Promotion Bank. Onward loans in support of tree planting were in turn extended to secondary borrowers, organized into three borrowing classes: companies, individual-entrepreneurs, and small farmers. The ITPP was not conceived of as community-based or village forestry. Rather, it was intended as a market-based plantation program aimed at the provision of formal, subsidized credit to skilled local farmers, nascent entrepreneurs, and foreign investors. Farmer extension support and training for smallholder tree planting was initially provided through the Ministry of Agriculture and Forestry (MAF), and then, in 2000, by the newly established National Agriculture and Forestry Extension Service (NAFES) under the MAF.

[106] Lang (2002) notes that Japan also involved in funding the highway upgrades of Route 8 to Vinh, which would be an important transportation corridor for plantations in central Laos.

While the original design of the ITPP was weighted towards extending credit to companies and individual entrepreneurs, the project experienced early difficulties in identifying interested firms in Laos that qualified for the loan facility, as well as with other regulatory issues which acted to block the enrollment of larger plantation investors.[107] BGA Forestry Ltd. was the largest single recipient of ADB subsidized credit through the ITPP program (an amount of approximately US$1 million). This represented an important source of bridge financing through the early 2000s to the company, which was repaid to the ADB after Oji Paper's purchase of the external investor shares in BGA Forestry Ltd. in 2004-2005.[108]

Lang (2003) and Barney (2008a) have provided detailed independent assessments of this ADB ITP project, and the ADB Operations Evaluations Department conducted their own review in 2005 (ADB, 2005b). My article critiqued the problems and pitfalls encountered with developing an institutional credit system for supporting small, medium and large-scale market-based plantation forestry sector in what was then a largely subsistence-based rural economy. The arguments I presented in Barney (2008a) were that the ITP project design focused on the technical aspects of tree growing, while it did not include an

[107] Notably, ADB (2005a: 2) states "… a lack of adequate land classification/ allocation systems to identify suitable plantation sites, and cumbersome customs procedures designed to preserve natural forests also hindered the participation of foreign investors."

[108] Through the period 2003-2005 the ADB was formulating a second phase to the plantation work in Laos (the 'Forest Plantation Development Project), although no final agreement could be reached, largely, it appears, over the ADB's proposal for the establishment of an independent Lao Plantation Authority (see ADB, 2005a; 2007).

adequate assessment of the political realities of the agrarian/peasant economy in Laos. With respect to the support for large firms and concession arrangements, the ITP project appeared to underemphasize the extent to which many rural farmers in Laos were (and remain) reliant upon access to swidden cultivation land, and the sharp displacement effects which could result from concession-based forestry projects which enclosed those lands. There was insufficient assessment by the ADB of how effectively Lao institutions would function in managing the provision of extension and credit facilities to sub-borrowers; little analysis of how the provision of a credit vehicle would lend itself to forms of state rent–seeking; and an overly-optimistic understanding of the potential for building viable market linkages between small farmers and timber buyers. Overall, the project reports portrayed a highly technical perspective on rural development issues, largely divorced from an understanding of agrarian politics, or of subsistence-oriented farmer's capabilities in managing risky, commercial tree plantations. As an internal bank review noted, there were also significant project supervision failures on the part of the ADB, and although the project had received a number of interim 'successful' ratings by ADB evaluators, this more comprehensive review finally rated the project as 'unsuccessful' (ADB, 2005b).[109]

[109] "The ITPP failed to improve the socioeconomic conditions of intended beneficiaries, as people were driven further into poverty by having to repay loans that financed failed plantations. The net effect of the ITPP on poverty was negative. The ITPP adversely affected the financial health of APB and undermined the development of rural finance in the Lao PDR. Nearly 90% of the ITPP loans were delinquent, and by the end of 2003, 82% of the outstanding loans were overdue for more than a year. The ITPP was rated as unsuccessful." (ADB 2005b: 37).

Yet, an exclusive focus on the ostensible failure of bank-funded smallholder projects such as the ITPP can also miss the larger logics and anti-politic rationalities of donor-led development (Ferguson, 1994; White, 1999). Such projects also have the general effect of centralizing political control in 'weak' states such as Laos (Barney, 2008a).

Situated in terms of GPN strategic coupling however, there is a paradoxical case to be made for the broad 'success' of the ADB plantation project and reform program in Laos. Considering the overall ADB loan and grant portfolio, the ITP project vehicle represented a relatively small amount of start-up capital in support of plantation sector market reforms in Laos, aimed at boosting a general comparative advantage in forestry development. A certain degree of rent seeking is typically expected and even planned for by ADB portfolio managers. Most importantly, the set of plantation sector reforms which were ushered in arguably played a role in attracting the interest of multi-national investment into Laos in the early to mid 2000s, preparing the stage for the concessions boom.[110]

With the interpretation of at least relative development bank 'success' in these efforts towards liberalization of investment and regional integration in the Lao resource sector, one could also argue that both the ADB and the World Bank could have better anticipated that with GMS infrastructure upgrades, in the context of a fast-paced regional economic

[110] In particular, ADB documents highlight a meeting organized by the Bank in 2004 in Vientiane, between the ADB, a number of multinational pulp firms and representatives from the GoL, as important in convincing both Oji Paper and Aditya-Birla to invest in Laos (ADB, 2005a: 10).

recovery and global demand for commodities, that Laos would quickly become a focus for a second wave of externally driven concessions and plantation forestland investments. The apparent reluctance of the development banks, or decision makers within Laos, to foresee the regional pressures that would be bearing down upon the Mekong region [a blind spot seemingly repeated by the World Bank in 2007-2009, with respect to the global land grab issue; see Lamb, (2009)] raises a different series of policy questions, which have to do with the appropriateness of the sequencing of economic reforms pursued in Laos. This argument places critical weight on the array of reforms in Laos that concentrated heavily upon infrastructure upgrades and "one-stop shop" investment liberalization measures, to the detriment of funding and policy instruments that strengthened social and environmental regulatory capacity.[111]

In terms of a conceptualization of GPN's, plantation companies, the ADB, and 'strategic coupling' in Laos, a number of points emerge from this analysis. Despite the basic failure of most of the project activities with smallholder tree plantations, the ADB likely played a role in enticing at least the first two main pulp sector players, Oji and Aditya-Birla, to enter into tree planting investment agreements in Laos. Clearly the ADB, as well as other institutions and programs, were important in leveraging overall forest sector reform in Laos, and in financing the logistical upgrades necessary for regional integration. For example the key east-west transportation corridor was financed and facilitated by the

[111] But see Hadiz and Robison (2005) for a critique of the 'policy sequencing' argument for understanding the consolidation of illiberal modes of governance in post-Suharto Indonesia.

ADB's GMS program (competed in 2004), as were the ADB's efforts to manage the overall sovereign risk profile of Laos. The role of the ADB of course also needs to be placed in the context of Oji Paper's own strategic interests in securing a regional land base for their China pulp expansion project. Without this broader regional demand context, the company would not have made a positive investment decision for Laos. In the terms of the logics of strategic coupling, this matches with Coe *et al*.'s (2004: 471) statement that: "Regional development thus depends on such a coupling process that evolves over time in relation to the rapidly changing strategic needs of global production networks and the rather slow transformations in regional economies of scale and scope." While it is certainly possible to overstate the role of the ADB in the Lao plantation sector, especially as their smallholder plantation efforts did not achieve anything close to the stated objectives, nevertheless it becomes apparent that in a number of ways the development banks were important actors in the 'strategic coupling' between large external resource firms and the regional resource assets controlled by the GoL.

A second key issue which emerges in considering the role of state actors and international institutions like the ADB in strategic coupling in Laos is the land question, and specifically the idea and political creation of a crucial new administrative category—'degraded forest-land' (Barney, 2008b). Here again, the ADB was an important actor. Examining the forest-land policy and reform process, and the ways in which external concessionaires have gained access to plantation space in Laos, provides an opportunity

for understanding the implications of resource rent capture for the formation of GPNs, and the socio-economic dynamics of regional development which this sets in motion (Bridge, 2008). In this way we can examine how resource sector GPNs become territorialized, and linked to state regulatory frameworks and policy reforms. A focus on the BGA-Oji concession arrangement, as well as a consideration of the situation and trajectory of the broader concessions issue in rural Laos, offers an opportunity to consider this in more detail.

4.2 GPNs and Forest Rents in Asia

Resource rents can be defined as supernormal profits, or returns in excess of a normal cost of extracting (or producing) a commodity plus a normal rate of profit.[112] There are many ways in which rents can be created and captured, but it often involves the role of the state in selectively regulating economic activity in a way that favours certain groups, officials or private firms. Private sector rents can also be established through forms of monopoly control. The creation of a rent in the forestry sector often occurs, for example, via the awarding of under-priced, extra-legal concessions and timber harvesting quotas, through the provision of special tax breaks or exemptions, or from the selective application of export or import regulations. As environmental standards in a country develop into a comprehensive legal framework, resource rents can also be created through

[112] On resources, and the use of ground rents versus non-proprietorial investment-promotion and taxation models in development theory, see Bridge (2008: 405). See Yates (1996) for a political theory of rentier states in Africa.

a failure to enforce those regulations (for example, a company which is permitted to shift the full costs of hydropower development, e.g. flooding events, onto downstream communities, in a way which impairs community land assets, and artificially enhances company revenues).[113] Rents in the form of subsidies can also be created or facilitated through the activities of donor agencies and even NGOs, for example through the provision of subsidized credit, or through covering the required social and environmental safeguard procedures which otherwise would need to be included in a company's expenditures.[114]

Rents can be captured anywhere along a commodity chain, from labour inputs to marketing issues. Large-scale pulp producers often can secure rents over smallholder outgrowers, though what amounts to monopoly control over the pulplog market in a specific territory. Scholars such as Cock (2007) have examined the ways in which state elites in Cambodia have positioned themselves as a *rentier class*, and how this has been

[113] Theories of the rentier state have typically been applied to interpreting the persistence of authoritarian politics in oil rich Middle East. Ross (1999: 312) writes: 'Theories of the rentier state contend that when governments gain most of their revenues from external sources, such as resource rents or foreign assistance, they are freed from the need to levy domestic taxes and become less accountable to the societies they govern.' Developing concepts such as these to understand the institutional organization and stability of national political regimes in relation to an international political economy of strategic resources, such as the rentier or neo-patrimonial state, is, I would argue, distinct from the notion of a 'resource curse', which seeks to make a narrower, more simplistic, and ultimately more problematic set of claims (e.g. "oil impedes democracy"), often through attempts at statistical analysis See Le Billon (2004) and Watts (2004) for critiques of Collier (2000) and Ross (2001b) on the idea of the resource curse. The issue, as scholars such as Coronil (1997), Dauvergne (1997); Latham *et al*. (2001); and Cock (2007) forward, is to maintain a relational understanding, to situate concepts such as the rentier or neo-patrimonial state in relation to a world political-economy, and to recognize the deep historical and contemporary involvement of transnational actors in the structuring of political order and authority in post-colonial and developing states.

[114] There is a long-standing debate around the role of state subsidy in promoting East Asian development patterns. See e.g. Alice Amsden (1992) on 'getting the prices wrong' and successful state policy in late industrializing East Asian countries, specifically South Korea.

accomplished and reproduced through elite regulatory capture over resource projects and other key sectors of the economy.[115] Hyde and Sedjo (1992) also make the important point that public sector agencies too can become dependent upon the capture and distribution of resource rents. The private sector holds no monopoly on rent-seeking, while central state control over forests does not remove the problem.

Michael Ross (2001a) meanwhile, very usefully distinguishes between 'rent seeking' and 'rent-seizing' behaviours with respect to natural resource exploitation. The latter refers to how elite officials have actively weakened and undermined the autonomy and capacity of state resource management institutions, in order to control the right to allocate lucrative resource windfalls to supportive business clients. In other contexts of Southeast Asia, Le Billon (2002), Dauvergne (1997, 2001), Shimamoto *et al*., (2004), and Cock (2007), also zero in upon the capture of resource rents in explaining aspects of resource 'governance failure' in Southeast Asia[116]. A strong case could be made that struggles over the control of resource rents is a central logic to the organization of forestry institutions, markets and governance across the region.

[115] The contemporary American Wall Street-Treasury Complex could be used as another example of elite regulatory capture, which some portray as a system of *finance-led crony capitalism.* On the importance of a strong bureaucratic state for preventing predatory rent seeking which undermines national development, see Evans (1995).

[116] The apolitical term 'governance failure' is something of a misnomer, since for the persons who benefit, illegal logging and rent seeking are unqualified successes.

In Southeast Asia, the truly lucrative rent-seeking opportunities from forests have usually involved joint public and private sector involvement. Indeed, an important paper by Brown (1999) details this collusion between both state agencies and capitalists in the Indonesian forestry sector, producing a situation Brown calls an "addiction to rent."[117] Struggles over the largest rents in the regional forestry sector very often connect the political organization and function of global commodity chains, with fast-industrializing developmental states such as Indonesia (Repetto and Gillis, 1988; Dauvergne, 1997; Barr, 1998; Gellert, 2003).

In Laos, it would still be difficult to argue that a distinct and definable, partially autonomous rentier class is currently controlling and directing state policy. To date the members of the powerful Party Political-Bureau have not formed an identifiable, political-business class (i.e. politicians have not used their position in office to secure shareholdings in key business conglomerates, such as hydropower, mining, agro-plantations, telecom, forestry, urban real estate, garments, tourism, or Beer Lao). Thus, the idea of a *rent-seizing* elite in Laos does not seem to match with the evidence. However, there is also a general lack of data on this issue, and such a pattern could be in the process of formation in Laos, especially through family-based channels of the Lao

[117] In countries such as Indonesia, pulp firms are also heavily reliant upon mixed tropical hardwoods sourced from natural forests (Barr, 2000).

elite.[118] As of yet, major hydropower or mining investments, for example, are typically controlled by state agencies (Ministry of Finance or Electriciti du Laos), and the revenues and royalties are channeled through state-holdings companies. In addition, the domestic entrepreneurial class in Laos is still nascent, and donor agencies still support the country's budgetary position in health and education. In some cases development banks are involved in designing programs that would regulate the management and allocation of resource sector profits (e.g. with World Bank's support for the Nam Theun 2 Hydropower Project Revenue Management Arrangements; World Bank, 2010a: 16-17).

Rent *seeking* in Laos is widespread however. In many land concession and plantation projects in Laos, significant resource rents are up for grabs, for both private developers and well-placed officials. A key method of rent creation is via underpriced access to 'degraded' forestland. This is land that is customarily managed by communities, but is unrecognized as such in the law, and is instead considered as state land. To understand how access to land becomes intertwined with the capture of plantation sector resource rents, a basic explanation of the political invention of "degraded forests" is required.[119]

The Natural History of Degraded Forests in Laos

[118] For example, the powerful Siphandone family of Champassak (through provincial governor Sonxay Siphandone) is said to hold strong interests in the proposed Don Sahong mainstem Mekong hydropower project, in association with Malaysian investors. Lao President Choummaly Sayasone is also said to hold an interest in a large sawmilling operation in Attapeu province.

[119] Local processes of land alienation for plantations will be explored in more detail in the next chapter.

A full accounting of the juridical history of plantations in Laos is beyond the scope of this dissertation. The following presents a brief interpretation of the recent history of land policy reform, including an outline of the key institutions which been involved, and a discussion of how the concept of degraded forestland has come to be established and solidified in law and in practice. Tracing through this history of degraded forest-lands in Laos can be a useful step in considering how plantation concessions have come to be established in particular sites, how access to land becomes a key focus for rent seeking and capture, and how concessions activity has linked with emerging state policy in Laos.

No Forestry Department in Southeast Asia legally permits industrial plantation concessions to be established in areas of high natural forest. According to formal legal frameworks, plantation land must be zoned as some variant of degraded or unstocked forest. Laos is no exception to this, although in practice the law is often not applied. Forests are often not surveyed according to standards, and there is a useful ambiguity in the definitions of what exactly constitutes degraded forestland. There is also the situation whereby extractive logging leads to such heavy damage that the land becomes suitable for conversion into plantations. An important element to the complexity of the legal regime in Laos is the considerable disconnect between central administrative policy formulation, and its actual implementation in rural areas, in the context of a nation state in which military, provincial and even district level authorities maintain considerable independent

power.[120] With these caveats in mind, I outline the progress made in recent years towards a establishing a regulatory framework governing juridical forest-land rights and ownership in Laos.

According to the revised 2007 Lao Forestry Law, plantation concessions must not be located in areas of high natural forests but in degraded forest areas, or on barren land. However, the practical definition of degraded forest and barren land is still unclear. The Ministry of Agriculture and Forestry uses a figure of less than 30 cubic meters of standing timber for defining 'degraded forest.' For the 1994-2003 ADB Industrial Tree Plantation Project, degraded forests were considered as forest-land with less than 20 per cent crown cover. The World Bank (2010b: 11) provides the following GoL working definition for "forest cover" as submitted to the UNFCC:

- Minimum 20% crown cover
- Minimum 0.5 hectares
- Minimum 5 meter tree height
- Palm trees and bamboo considered not forest

Degraded forests are defined in the Forestry Sector 2020 document and the 2007 Forestry Law (MAF, 2005) as:

[120] The 1980s was a period of de facto radical decentralization, as the country shifted from strict central planning to a transitional economy, and control over budgets, revenues, expenditures and taxation were allocated to the provinces (of which logging revenues were a crucial component). From the 1990s to present, the LPRP has been engaged in an effort of political/administrative re-centralisation. Stuart-Fox (2006: 63) states however that Lao provinces continue to be the "…virtual fiefdoms of powerful province governors."

> "…forests that have been heavily damaged, to the extent they are without forest or barren, that are classified for tree planting and/or allocation to individuals or organizations for tree planting, permanent agriculture and livestock production or other purposes in accordance with national economic development plans."

The Stora-Enso plantation project in southern Laos uses an ecological definition benchmark of degraded forest as forestland with less than 30 cubic meters of standing timber per hectare comprised of tree species of more than 15 cm diameter at breast height (DBH) (personal communication, 2010). Oji Paper follows a standard for degraded forest as those areas with less than 20 m^3 of standing timber per hectare, but the extent of crown cover and tree height is also taken into consideration. According to the informant from Oji Paper, the practical legal definitions for degraded forest in Laos are not sufficiently clear (Interview, June 9, 2010).[121]

In addition to ecological parameters, degraded forest can also be zoned through administrative procedures, so that it becomes simply those lands that are classified by the state as 'degraded' and available for tree planting. This issue is important because degraded forest (and swidden forest) constitute the territories that can be made available for agri-business concessions.[122] The fundamental issue at stake, which persists in recent revisions in the Lao legal framework, is between forest-land classifications based on legal (cadastral) definitions, versus forest-land

[121] An adequate practical definition would also distinguish what degraded forest entails in different eco-zones within the country (e.g., in dry dipterocarp forest, lowland evergreen forest, upland pine forest, etc.).
[122] ADB consultant reports in the past decade have raised the question of whether, from Lao villager's perspective, they held any "degraded forest" at all. According to this study, the concept of "degraded forest land" is not well understood locally, even by village leaders (ADB 2003: 42,48). For Lao villagers, degraded forestlands are simply recovering swiddens (*pa lao on*, *pa lao ke*), which will soon revert to a forest with larger trees (*pa dong*).

classifications based on qualities of the vegetation cover, versus local definitions based upon histories of customary use and management (Peluso and Vandergeest, 2001). Such loopholes in the legal framework around land obscure the qualities of territory that can be zoned for land concessions, and opens the door to discretionary political intervention. In addition, the actual local monitoring of the practical definition of 'degraded forest' in land concession establishment is typically lacking, as district authorities in Laos do not have the resources to provide effective regulation over concessionaires. The discursive identification of certain spaces as 'degraded forest' is crucial however, for the political project of releasing these forests of substantive social, ecological or economic significance. The irony of this situation is that 'degraded' forest has quickly become a very lucrative and strategic asset for the Government of Laos, as these represent the areas that can be allocated to concessionaires for plantation development.

To understand how state-owned 'degraded forestland' is distinguished from complex arrangements of customary land uses, we need to delve a bit further into the political complexities of the land zoning process in Laos. Doing so highlights the key role of state institutions in strategic coupling in the plantation sector, as shows how plantation production networks become territorialized on the ground. It is important to recall that most degraded forestlands in Laos are, in reality, community-managed plots of swidden fallow. When these community swidden lands become zoned as degraded land through the state-led land use planning and allocation process, they become considered as state

land, and no compensation needs to be paid to community land use managers. Such access to underpriced forestland represents the primary mechanism of rent capture in the Lao plantation sector.

Land Use Zoning and Rents in the Lao Plantation Sector

The Land and Forest Allocation program (LFAP), implemented by the Lao Ministry of Agriculture and Forestry through their provincial and district field offices, was, at the time of fieldwork, the most important zoning program governing village level forest-land access country-wide. The LFA was centered on two components: "(i) The allocation of degraded land to households with a temporary land use certificate for crop cultivation, tree plantation and livestock grazing. Titles would be issued after a period of satisfactory performance. (ii) Following the allocation, forest types would be classified (e.g. protected, community use, rehabilitated, conservation and production) and agreements would be signed with each village." (UNDP, 2004). Inclusive of where external village boundaries and internal land use zones were fully mapped in accordance with the LFA system, villagers are awarded only use rights, and ultimate ownership rights over village forest-land and the resources on those lands, including timber, is maintained by the state. Areas of villager-managed swidden fallow land inside village boundaries may thus be

ceded for national development programs such as industrial tree planting in accordance with existing legislation.[123]

From published accounts, Land and Forest Allocation exercises were fully completed in the provinces of Vientiane Municipality, Bokeo, Xayaboury, and the former Xaysomboun Special Zone (now part of Vientiane province). It remains incomplete in other Lao provinces; although there is little comprehensive data or publicly available LFA progress maps to show this.[124] Progress in conducting new LFAs has in effect been discontinued in recent years, due to budget restrictions and a broad realization that the programme requires substantial modification. The new NLMA is now the agency that is to work in association with the MAF on implementing the new framework— Participatory Land Use Planning (PLUP) (MAF-NLMA, 2010).[125]

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[123] In Laos, full land titles were issued in urban and peri-urban zones, in association with the second phase of a World Bank/AusAID-funded Land Titling Project (LTP II). At the time of research, Land Titling and LFA were organized by distinct institutions: LTP under the Department of Lands under the Ministry of Finance, and LFA under the Ministry of Agriculture and Forestry. World Bank and AusAID support for the LTP II was discontinued, and both land titling and land use planning and land allocation (LUPLA) are now being managed through the new National Land Management Agency, and the MAF.

[124] NRDS (2004: 12) records that LFA activities were completed in 4,813 northern province villages as of June 2003. In the Southern provinces LFA were completed in 2,376 villages as of March 2003 (ADB, 2003). If it is taken that there are approximately 11,000 villages in Laos, as of mid 2003 this suggests that approximately 65% of Lao villages had undergone some form of LFA.

[125] I have not traced through the complete genesis of the current PLUP model in Laos, although a number of agencies, including Swedish SIDA, the ADB, and German GTZ, were involved in developing pilot projects for improving the land use planning and allocation system in Laos. Lao agencies of course have also closely worked on this issue. GTZ has also been an influential part of the Cambodian land tenure policy framework, and there may have been some cross-influence between countries. It is important to note that in Laos there is no special 'indigenous' approach for communal land titling, unlike in Cambodia. In Cambodia the 2001 Land Law formally recognizes communal title over customary land, although this has never actually been implemented in practice. Similar to Laos, the World Bank in Cambodia, through the Land Management and Administration Project (LMAP), avoided becoming involved in the titling of any contentious 'indigenous' areas.

Under the LFAP design, external village boundaries were mapped and delineated, a series of internal zoning of land use categories established, and forest-land plots were allocated to households. Forests were classified into five main categories: protection, conservation, production, regeneration and degraded forests, although other categories were also used. Village production forest can be used for NTFP collection and for household timber use; timber cutting is officially not permitted in protection or conservation forest. Upland agricultural rice practices (swidden) could be undertaken in designated areas only. Up to three hectares of swidden land per family were also awarded with Temporary Land Use Certifications (T-LUC's) for swidden farming (although in Hinboun district, this land allocation step was not completed). In theory, T-LUCs were to be convertible into permanent Land Use Certificates after three years, although this step was also was never implemented in Laos. Village forest and NTFP management plans were to be consolidated under five-year renewable agreements signed between the District Agriculture and Forestry Offices and the village committees, but again it is unclear if this was ever finalized.

It is worth recalling that the LFA process was developed in close association with donor agencies, and on paper, represented a participatory approach to tenure reform that aimed to recognize customary/traditional tenure systems and to establish collective tenure rights to forest and agricultural land. The program as stated is not inconsistent with poverty

alleviation through applied rural extension, as well as the promotion of participatory, community-based forest and land management (Vandergeest, 2003). Fujita and Phengsopha (2008) make the point that where the LFA was not led by donor agencies, the district organizations charged with implementing the LFAP faced very genuine constraints, both in institutional funding, staffing levels, and in training.

In implementation however there were many problems, which are largely related to how LFA was turned into a tool for eradicating swidden (Vandergeest, 2003; Ducourtieux *et al*. 2005; Baird and Shoemaker (2005: 13). The Lao State Planning Commission, in association with the ADB, released two influential Participatory Poverty Assessments (SPC-ADB, 2001; Chamberlain, 2007). A significant conclusion of both studies was that the LFA and shifting cultivation stabilization programs were a primary source of poverty and hardships for rural villages. While agencies within the Lao state can, and do, release critical reports on the swidden issue, and the new Participatory Land Use Planning manual has been finalized to direct land zoning and allocation (MAF-NLMA, 2010), the broad direction of the Lao government remains firm: that all efforts should be made to hasten the transition of upland villagers out of swidden and into more economically productive forms of agriculture that do not affect forest decline. For the GoL, this is particularly crucial in terms of meeting the objectives for poverty alleviation and escaping 'least developed country', or LDC status, by 2020. Agricultural modernization and rural

development is the legitimate goal envisioned, but for the GoL this future does not include farmers doing swidden agriculture.

Civil society programs around swidden agriculture are divergent, but the critiques center upon the purported relationship of swidden to forest degradation and deforestation; poverty; and culture. [126] Swidden agriculture in Laos is viewed by many of the smaller and grassroots-oriented NGO actors as a potentially appropriate and adapted farming system for mountainous areas. Lao swidden systems are understood as diverse, and when practiced under the appropriate conditions as a sustainable land management system, results in less significant effects on forest loss and decline than is usually considered, especially in relation to full forest-land conversion to plantations. Swidden farming in Laos is correlated with poverty in civil society discourse, but it is viewed as the starting point for poverty alleviation efforts, not its opposite. In some cases, the historical and cultural-religious basis for upland swidden farming is highlighted, although many

[126] There are different ways of understanding 'civil society' in Laos. First, it is important to recognize that there is no formal, domestic/Lao NGO sector that is allowed to operate outside of state controls. However, following the Vietnam model, a recent 2009 Prime Ministerial Decree (No. 115/PM) on Non-Profit Associations (NPAs), has recently opened the door for domestic civil society groups to become more involved in resource management issues in Laos, with state approval. Although not strictly NGOs in the usual sense, mass organizations in Laos (including the Lao Women's Union, and the National Front for Reconstruction and Development on minority issues) participate in development activities and perform some functions of national NGOs in other countries. While closely linked to the Lao People's Revolutionary Party (LPRP), these mass organizations have extensive organizational networks stretching from the top of the party hierarchy down to the village level. These mass organizations in the Lao PDR represent, at least in principle, a move from centrally controlled government policy-enforcing bodies to institutions active in traditional civil society. Civil society can also be considered as involving the Buddhist clergy, or other more informalised local collectives. My comments here focus on international civil society and donor organizations working in Laos, specifically as involving the Land Issues Working Group under the international(i-NGO Forum). There are significant cross-interactions between international groups and the nascent Non-Profit Associations.

concede that upland Lao farmers themselves are interested in alternatives to swidden as now practiced (which is generally difficult work for low returns). Civil society actors, for example, through the International-NGO Network, argue that the guiding approach to swidden systems should focus on effective extension and providing a greater range of livelihood options for farmers, not state coercion. The Land and Forest Allocation policy was seen by many actors as representative of such a state-coercive approach to upland farmers, resulting in 'participatory LUPLA' acting as a *de facto* mechanism for displacement (e.g. Baird and Shoemaker, 2005).

At the time of field research, there were a number of international donors experimenting with modified, more participatory approaches to LFA, including the NAFRI-Lao Swedish Forestry Upland Agricultural and Forestry Research Project (LSUAFRP); the ADB Shifting Cultivation Stabilization Project in Huaphan; and the GTZ Rural Development in Mountainous Areas (RDMA) project in northwestern Laos. Other i-NGOs have been conducting their own, participatory LFAs in project villages e.g. JVC in Khammouane. In some of these projects the land allocation component has been eliminated entirely, and the focus has shifted exclusively towards enhanced participatory land use planning (PLUP). In the GTZ project areas, the land allocation component is being replaced by a pilot project in land registration. The NGO Village Focus International (VFI) has

suggested a particular but influential interpretation of the land and forestry laws in arguing their case for the increased legal recognition of customary lands in Laos.[127]

For the GoL, however, swidden farming remains a problematic issue both from a poverty alleviation perspective and from a sustainable forest management perspective. GoL policy was for swidden farming to be completely eradicated by 2010 (which followed upon a previous directive in 1994 that swidden was to be eliminated by 2000). Clearly swidden cultivation is still occurring. It is unclear, however, if it is all forms of shifting cultivation which are to be eliminated (or, at other times 'stabilized'), or just pioneer forms of swidden involving the cutting of larger trees. True 'pioneer' swidden is probably very rare in Laos however. In effect the distinction typically comes down to one of district implementation and the discretion of individual government officers. At the provincial and especially the district level there is often a more pragmatic approach taken to swidden (e.g. Barney, 2007).

While the regulatory mechanisms for land zoning and allocation are quite complicated in Laos, the key point is that the discourses and policies of degraded, underutilized land in Laos assists in the project whereby valuable village land assets are enclosed, with minimized obligation of financial compensation to villagers for alienated community

[127] According to VFI, under various sections of the existing legal code, each household in a village is actually eligible to be allocated the following: fish and paddy rice (1 ha), fruit trees (3 ha), land for tree planting (3ha), land for upland crops (3ha) and land for livestock grazing (15ha) [= 25 hectares of degraded land per household] (VFI, 2005).

common property assets (Barney, 2008b; Nevins and Peluso, 2008:6; Lestrelin, 2010). In this way, re-zoning degraded forests has become central to Laos' transformation into a competitive agro-industrial plantation producer.

4.3 Concessions and Rents in Lao Plantation Forestry

Hyde and Sedjo (1992) make the important observation that debates over the extent and role of rents are fundamentally empirical questions, which need to be defined and located in each political context. Existing plantation projects in Laos, including Oji-LPFL, provide an insight, if not a full picture, of how rents become linked to the political economy of land concessions in Laos.

The driving incentives behind rent creation and capture in the Lao forestry sector are fairly clear, and combine both direct and indirect or ideological elements. Investors need to be assured that there are in fact significant areas of quality, 'empty' land available, to overcome the perception of investment risks and the potential for delays entailed in project development in Laos. All levels of the forestry bureaucracy stand to gain from foreign investment in plantations, not only from the stipends from project work that supplement their low public sector wages, but also from the opportunities to actually implement bureaucratic programs. From the MAF's perspective, the implementation of national forest policy is made much more possible through the financial support of a foreign investor. These agencies are oriented towards conceiving of forestry as a

modernizing project where the loss of access to the commons will be compensated through wage labour opportunities in a successful industrial plantation project. In the absence of downwardly accountable institutions in Laos that could serve to translate upper level legal statutes down to appropriate local implementation standards, the differences between the *de jure* "political forest" and the *de facto* "forest of local resource use and management" are reinforced (Peluso and Vandergeest, 2001).

In terms of the Oji-LPFL project, under the terms of the concession agreement, the company receives access to 50,000 hectares of 'state' degraded forest land. Villagers in turn are to receive $1/ha./year in compensation for this land. Spread over a lease time period of fifty years, this implies a *total land cost* to the firm of about US$2.5 million (in present value terms), for the entire project area. In comparison, in nearby Guangxi province, southern China, another multinational pulp company— Stora-Enso— is in the process of developing 120,000 hectares of smallholder land into plantations in potential support of a pulp mill project. In China, villagers and communes have more secure land ownership rights than in Laos, and the company must negotiate directly with villagers and communes for access (Ping and Nielson, 2010). The average lease rates that Stora-Enso are paying, through minimum 7 year land lease agreements signed directly with individual and communal landowners, are in the range of US$70-80 per hectare per year (Cossalter, 2005; UNDP, 2006). Spread over 50 years, the $80/hectare figure represents a total cost for accessing that land in the range of US$480 million for the company (in

present value terms). The massive differences in land lease rates between Oji's project in Laos, and Stora-Enso's in China, are indicative of the land rents being captured by the former.

To provide more comparative examples on land rents, in Vietnam, an ADB report (2005c: 46) cites plantation land rental costs in at $40 per hectare/year for land located close to port facilities, with $40/ha.year also typical for Brazil and South Africa. Midgley (2006) estimates land lease rates of $20-$30/ha./year for good plantation land in Vietnam. In Thailand, in 2002, rents were US$17/hectare for the first rental period and US$34/ha. afterwards (Mahannop, 2004). Midgley (2006) estimated that plantation land lease rates on Laos could start at about $20/hectare/year, while the ADB has cited potential competitive land lease rates in Laos in the range of $30-$50 per hectare per year (ADB, 2005c: ii). All of these rates are significantly above what Oji-LPFL and other investors appear to have secured in their concession deals in Laos.

Other plantation firms in Laos, such as Aditya-Birla, also appear to have secured very low land rental rates, perhaps in the range of $3 to $6 per hectare per year, or less. Some of these firms also have agreements under which they would not begin to make land rental payments until after the first harvest (7 years in the case of eucalyptus/acacia plantations). Data presented in GTZ (2006) indicates extremely low overall state revenues from state land leases and concessions for companies across southern Laos. Indeed, for the year

between 2004-2005, GTZ (2006) found that total state income from all land assets countrywide in Laos, only amounted to US $7.2 million, an alarmingly low figure given the extent of concession deals that have reportedly been signed.[128]

In a functioning state regulatory environment, the land lease rates for foreign investors would be based either upon a competitive bidding system, or an independent, professional analysis, conducted on behalf of the government, detailing the potential revenue streams and profits for the investor in question. For example, in the preparation documents for the Lao Forest Plantation Development Project (approved by the ADB's Board of Directors, but declined by the GoL in 2006), the ADB (2006) published a note entitled 'The Importance of Forest-Land Rents for Lao PDR.'

> "In Lao PDR there is, as yet no well established market for land, and so the value of the land must be determined by considering the total value of the output from the land in question, and deducting the cost of the other factors of production. The residual is the value of the land, since all the other factors have been taken into account. Thus, the value of land is not fixed, but will vary as the cost of production varies and the value of the output varies. Increases in wages, material costs, including fuel, and in bank lending rates will reduce the residual value of the land, but this is often compensated for by an increase in the price of the output."

Thus, the rent charges should be based on various 'qualities' of the land (fertility, access to water etc.) and associated infrastructure (cost of harvesting and transport), and a good

[128] Even given that some of these revenues from state assets will show up not as lease fees, but as joint venture profits, these are still low numbers.

analysis of the firm's business plan (including cost of labour, materials, equipment, and capital; and the expected yield and unit price for the product).

This ADB report also estimates that for a pulp mill project, the cost of land rented at $20 per hectare per year, would still only represent 8.4% of the total cost of wood supply; and only 1.6% of the total investment of a large pulp mill. For a competitively sized medium-density fibreboard (MDF) factory, a land rental fee of $20/ha/year would only represent 0.5 per cent of the total investment including the factory. The report concludes that: "Therefore the profitability of an integrated operation is not very sensitive to the land rent." For large integrated mill projects, land rents do not comprise a major proportion of project expenditures, although for primary export-based plantation operations, land rents would be crucial. The rents allocated to private investors (and lost to communities or the state) can certainly be significant in absolute terms:

> "Assuming that a large foreign investor is given 50,000 ha rent free for 16 years to cover the first growing and harvesting cycle of a fast-growing tree crop for wood fibre, then the direct loss in government revenue is at least $1 million annually."

Midgely (2006: 30) reiterates this view:

> "At more realistic annual land rates of US$20 per hectare (considered reasonable by this consultant) such over-generous arrangements equate to a subsidy of $1.4 million for a 10,000 a concession, or US$7 million for a 50,000 ha concession. If these unsubstantiated conditions for land concessions are true, there would appear to have been an opportunity missed to gain significant Lao equity in such projects.

The above picture of governance failure and fiscally irrational land rental fees is complicated in the Oji-LPFL project case, in that the project is a joint venture between Oji Paper and the GoL. In joint ventures, the state acts as both a managerial landlord, and an industrial owner. Such partnership enterprises— which include Oji-Laos Plantation Forestry Ltd., and the Theun-Hinboun Power Company—blur an easy separation between the interests of the state and the interests of external investors. In the case of Oji-LPFL, it appears as though the Lao government has foregone land rental arrangements, in exchange for a joint venture partnership with the company (which involves a share of capital brought into the country for the project, as well as a share in joint venture profits).[129] This represents an important historical (and still relevant) characteristic of the Lao state's overall development strategy, which extends back to the bartering of timber to repay war debts. That is, the GoL aims to convert natural resources into capital by using land as an asset for strategic partnerships (see Dwyer, 2007). Yet, even accounting for this 15 per cent stake in Oji-LPFL, as compared with competitive land lease rates elsewhere in Southeast and East Asia, it would seem that there are still significant rents being allocated, for LPFL and other plantation and resource sector firms in Laos.[130]

[129] It should be added that joint venture concession contracts also challenge any simple understanding of state agencies as independent socio-environmental regulators of private sector resource development. Joint venture arrangements may provide more of an incentive for the company in question to forego the full accounting of socio-environmental costs, as compared to a simple land lease arrangement, where the government/regulator does not hold a direct interest in the eventual profits of the enterprise

[130] As noted, it is of course important to remember that state governance problems associated with Oji-LPFL could also affect end profitability. Yet, this runs both ways. For instance, the joint venture status of LPFL also means that the parent Oji Paper Company would also have a direct incentive to redirect profits to other companies in the Oji group, to avoid sharing these profits with its GoL partners. Such corporate practices are referred to as 'transfer pricing.' As explained earlier in this dissertation, this practice been widespread with other regional pulp and paper companies such as APP (Pirard and Rokhim, 2006)

In terms of our analysis of strategic coupling, the above discussion of Oji Paper investment in Laos points to the relationship between the 'path dependency' of resource investment, as based on economic logics of profitability and expansion; as combined with the contingent role of regional institutions and state policy and regulatory organizations. While there is certainly a structural logic behind expansion in the Lao plantation sector, the ways in which resource investment occur, and the territorial forms that these investments take, are very dependent upon the institutional and regulatory context in host countries. As Coe *et al*. (2004: 469) note:

> "Often, such complementarity and coupling effects can be enhanced and exploited through particular sets and practices of 'regional' institutions….We argue that it is these *interactive effects* that contribute to regional development, not inherent regional advantages or rigid configurations of globalization processes."

It bears recalling that such land rents are being generated and (mis)allocated due in part to ADB boosterism around the plantations sector, as well as GoL ideology around swidden and degraded land. Indeed there was a general lack of attention to social land rights and environmental concerns, well before liberalization reforms opened up investment into the lands sector. I argue that these patterns also extend beyond the GoL, the ADB or Oji Paper. In fact these scenarios are common throughout the developing world and have become characterized in part through the popular idea of the 'global land grab.' This situation has its foundation in the flow of capital into the commodity sector, and is tied to the ways in which investment capital is primed to seek out and take advantage of

'frontiers', where property rights and institutional environments are fluid and open to capture (Tsing, 2005), and where there is a potential for higher rates of profitability and windfall rents (Ross, 2001a). In the next section, I turn to how the cumulative results of GPN-linked resource commodification processes in Laos are re-producing a contemporary 'resource frontier'.

4.4 Laos and the Making of a Resource Frontier

In frontier contexts, characterized by an infusion of new actors and rapidly shifting property rights, the blurring of legality and illegality on the resource frontier can present both opportunities and risks for longer-term investors, including as plantation firms.[131] Despite the real or perceived risk, both Laos and Cambodia (two high sovereign risk countries) have become the focus for a concessions boom. The potential for rents, or extra-normal profits, weighed against various risks associated with emerging or unstable national markets, would seem to be a key factor in this tension around resource investment in so-called 'emerging markets.' Frontier investment environments tend to attract different types of resource capital. As Elson (2009: 7) writes:

> "Short-term investors may not be so concerned with political risks; in fact in certain cases unstable political environments have attracted short-term investors

[131] For example, the forestry consulting group RISI (e.g. 2006) publishes a detailed country ranking of attractiveness for global timberland investment. Different countries are ranked according to the following indicators: policy consistency, inflation, economic climate, strength of judicial system, corruption, foreign ownership provisions, transport infrastructure, local labour costs, land tenure and availability, market accessibility, and biological/physical risks. Some of these categories, such as land tenure and availability for plantation firms, could be in some contradiction with other categories, such as the strength of the judicial system. The 2006 'Timberland Investment Attractiveness' rating for Cambodia was 2.84, and for Laos it was 3.30, compared to Japan's 5.29 (7 indicates high attractiveness for investors, 1 is low).

> who prefer opaque or malleable regulatory regimes. Long term investors, on the other hand, need to make predictions about a country's long term governance performance in order to asses the underlying investment risk, and thus determine the appropriate price (or yield) for the security."

While this is a good representation of the rhetoric of investment capital, the lesson of the plantation sector in Indonesia for example, is also that some "long term investors" will still take the risks of investing in countries with opaque and malleable regulatory regimes— as long as their investment is backed by police or military power. The Cambodian plantation sector is perhaps representative of a tipping point, whereby even when backed by military-police protection, investment capital is unable to implement projects due to the extent of rent seeking and the opacity of the legal regime. There is a fine balance between the potential for rents and enhanced profits, and the transparency and legitimacy of a legal governance regime. In the case of Cambodia, it may be that 'speculative' land and rest estate investors have been able to crowd out some of the more reputable and long-term agri-business companies.

For Marxist scholars such as De Angelis (2004: 72), frontiers of various kinds are viewed as a functional spatial form in the organization of global capitalism:

> "Capital's identification of a frontier implies the identification of a space of social life that is still relatively uncolonised by capitalist relations of production and modes of activity."

Frontiers in this sense become understood as a geographical expression of primitive accumulation and enclosure, a process: "…rooted in capital's drive to continuous

expansion" (De Angelis, 2004:72). While these statements perhaps contain an element of reductionism, I suggest that the Marxist conception of the frontier captures an important element to understanding the underlying interplay between 'speculative' and 'reputable' firms in contexts such as the Mekong plantation sector. Both represent distinct fractions of capital, with differential appetites and orientations for handling political risk.

In research on the political ecology of Southeast Asia's forested and upland landscapes, the frontier concept is often deployed as a heuristic device to understand the interplay between investment, state regulation, and the environment (see e.g. Tsing, 2005 on Kalimantan; and John McCarthy, 2006, on Sumatra). Walker (2006) presents the frontier as "…expanding borderlands (figuratively or literally) driven by economic cycles of rapid investment with potential for disproportionate return on investment." Along similar lines, Tsing (2005: 28, 31) has recently described current forest-agrarian dynamics in Kalimantan's interior as a deregulated zone of 'frontier capitalism'. Indonesian frontiers are presented as an "out of control, interstitial capitalist expansion"— a dystopian "traveling theory", marked by violent dispossession, high profits, and deep ecological degradation. Tsing's interpretation of the Kalimantan frontier situates to how local people, places, and natures become actively marginalised, and how customary property regimes are erased or confused by the entrance of new actors who "change the rules", through both legal and extra-legal means. The 'agency' of nature and landscape is of key

importance in Tsing's account of how the Kalimantan frontier pushed forward in Suharto-era Indonesia.

Imaginings of Laos' development future has become closely associated with various business-friendly representations of an untapped frontier. The Asian Development Bank (ADB) for instance, has dubbed the Greater Mekong Subregion as a 'last frontier' for intra-regional business opportunities and for environment conservation programming (ADB, 2004). Lao state ministries themselves have also deployed the trope of the frontier, in seeking to boost investor interest into the country. For instance, in a special advertising section to the high profile American magazine *Fortune* (2007, S1-S2), then Deputy Prime Minister and Minister of Foreign Affairs Thongloun Sisoulith pitched Laos as a 'New Frontier of Opportunity', highlighting Laos' ASEAN and upcoming WTO membership; supportive, confidence-building investment policies; and an expanding volume of intra-regional trade made possible through infrastructure upgrades. The idea of Laos as a resource frontier (and upland Laos in particular, as a sub-national resource periphery) is not simply an ideological spatial imaginary forwarded by elite interests. In another sense the resource frontier also captures an important empirical 'reality' concerning the political economy and ecology of rapid and uneven development in the country.

Undoubtedly, there remain significant limitations in the ability for international capital to invest profitably in Laos. As mentioned, Laos remains near the bottom of regional good

governance, transparency and 'ease of doing business' surveys. Announced FDI projects can be delayed and then later abandoned, due to bureaucratic delays and rent seeking, a generally weak regulatory environment, and indeed due to the underlying, speculative nature of particular investors (see e.g. GTZ, 2006; Dwyer, 2007). But the steady progression of the Lao state, and their development bank patrons, in recasting the country as a new frontier for capital intensive forms of natural resource sector investment, is striking. Regional integration and investment, set back significantly by the Asian financial crisis of the 1997-2001 (Pholsena and Banomyong, 2006: 93), is a project now firmly back on track (see also Glassman, 2007). While the country's external debt load remains high, at approximately 80 percent of GDP, from a macro-economic perspective the World Bank (2006: 2) suggests that: "…with prudent fiscal management this [external debt] and other vulnerabilities are expected to ease alongside the increases in FDI [foreign direct investment] due to large projects."

But there are clear omissions and simplifications involved in this imagining of rural and upland Laos as an available frontier space for transnational investment into hydropower dams, plantations and mining. As explained previously in this chapter, the idea of under-population in the Lao uplands has been propagated by the ADB, asserting that there is abundant and available 'degraded land' available in Laos for tree plantations development (ADB 2005a). This is despite years of documented research—some of it sponsored by the ADB itself—on the importance of access to customary natural resources, including long

term rotational fallows in swidden agriculture, for livelihoods in the upland countryside (SPC-ADB, 2001; Chamberlain, 2007). Similarly, the World Bank and the ADB have provided loan guarantees for the Nam Theun II project, despite the fact that the dam will undermine the livelihoods of over 120,000 downstream persons, and there are only limited plans to deal with this eventuality (see e.g. International Rivers, 2008). One could argue that such omissions are not an accidental oversight— they are a crucial method of externalising the true costs of resource development mega-projects, and shifting the damages and the responsibility onto local populations.

Understandings of Laos as a resource frontier, on the one hand, serves a useful ideological function for resource capital, in as much as this taps into popular understandings of frontiers as 'empty' or under populated wilderness, which hold the promise for access to cheap land, and high rates of return. A more critical, political ecology approach to frontiers however identifies a crucial truism of capitalist globalization— that capital actively seeks out and establishes new resource peripheries, thereby reproducing uneven development and marginalization. As Tsing (2005) points to in Kalimantan, the ambiguity and manipulation of legality and illegality in the Lao resource sector, the existence of both simple extractive, and governing-developmentalist resource project types, should not be understood as an aberration from more normal or 'rational' patterns of development. Rapid processes of primitive accumulation and the

continuous colonization of new geographic spaces are rather inherent features of capitalist dynamics.[132]

Lao state planners and their multi-lateral development bank backers face a crucial problem in this sense, precisely because the uplands are most emphatically not an 'empty wilderness', or freely available for market development. The freely available frontier land of the development programmer's imagination must be created; produced where it did not exist before. Thus, in order to fully capitalise upon the revenue generating potential of the Lao landscape, to provide investment capital with above average rates of profit (i.e. resource rents), and to provide the state with a revenue base to maintain its (often clientalist, neo-patrimonial) functions, widespread upland enclosures must be engineered.

This presents an expansive new set of potential interventions in state governance in Laos. To be sure, expansive and coercive enclosures are being achieved in part through a state apparatus that is willing and able to implement programmes of resettlement and focal site development (see Baird and Shoemaker, 2007). But in Laos, as elsewhere, developments on the resource frontier are usually not simply a story of domination and expropriation.

[132] Kelly and Kaplan (2001: 424) drawing on Weber, point to the 'functional' aspects of such a dynamic instability: "Markets in general, and markets in capital in particular, have great use for the calculability that comes with powerful legal regulation, not least to protect great and risk-laden investments. But nevertheless they have also an even greater use for schemes that lead to growth via exploitation, manipulation and other overcoming of legal limitations."

As the Lao state moves towards governing and improving, rather than simply expropriation and extraction, rural and upland resource development has also become a complex field of political negotiation, involving the promise of social development and community improvement, in exchange for relinquished communal claims to 'state' land. This exchange of land for development can be, and indeed typically is, a very unequal bargain. But the resolution of this new governmental question in Laos hinges around how 'successfully' such an upland transition can be engineered. A range of more or less sophisticated development programmes have emerged, at times involving cooperative arrangements between private sector resource firms and socio-environmental NGOs, in which the provision of development 'goods' (access to extension services, new technologies, market access, tenure security and so forth) are extended to affected communities, in an attempt to counter-act negative outcomes of resource development. These development interventions are aimed at moving rural people towards producing saleable commodities, but from a smaller space of land. In these ways, the displacement and enclosure effects from large scale resource development projects come to be viewed as 'reasonable, if difficult decisions' by a wide number of mainstream development and conservationist actors. De Angelis (2004: 82) also points to the complex and contradictory nature of resource frontiers and the capitalism's enclosures:

> "The discourse of enclosures… must present itself not as a negative force, one that separates, brutalises, and disempowers; but, on the contrary, it also has to wear the mantle of rationality, and project a vision of the future that makes sense to a multiplicity of concrete subjects."

It is important to recognise this productive side to producing and governing frontier space in Laos in accounting for the enduring power, and the political legitimacy, of what can be quite radical programs of rural dispossession. A comprehensive analysis of the frontier would incorporate not just the technical, material interventions, but also how poverty alleviation programs are involved in a remaking of rural subjectivities, towards the goal of producing modern, productive, market-oriented farmers in Laos (this will be taken up in the penultimate chapter of this dissertation). The 'soft' power of development— outside of extreme cases of military-authoritarian coercion— lies in the extent to which these external governmentalizing objectives overlap with the desires of people themselves for better lives and increased opportunities for their children. This can be the case even as rural people are dispossessed from their historical territories, and as entire landscapes of the Lao countryside are radically transformed. In Chapters 5 and 6, I explain in more detail how these differential forms of power become operationalised in a particular village setting.

Patchworked Frontiers in Laos

The resource frontier in Laos can produce striking landscape transformations. In my primary fieldwork sites in central-southern Laos, the most egregious forms of elite-sponsored tropical timber mining (in the guise of plantation concessions, for example of coconut or oil palm, see GTZ, 2007b: 22), can be situated not far from closely surveyed and mapped spaces of the World Bank SUFORD certified-sustainable village forestry

programme, or co-managed IUCN protected areas aimed at a conservationist and eco-tourist clientele. These spaces in turn are not far removed from surveyed land reform areas that have excised areas of so-called degraded forest from communal control, for the creation of industrial plantations of eucalyptus and rubber. There is no singular political-economic rationality or intentionality at work in the Lao uplands: neoliberal, clientalist, bureaucratic and extractive-accumulation logics interact with provincial and district levels of the state, and with local livelihood practices, to produce a complex and relational reworking of the upland frontier in Laos.

Many of the contemporary resource projects and policies underway in Laos, especially those which are linked to corporate social standards and new eco-certification regulatory mechanisms can be understood as closely linked to neoliberal forms of development. It bears recalling however, that Laos continues to be the site for alternate regimes of investment, extraction and accumulation, not all of them liberal-capitalist in orientation. Actors other than multinational resource firms continue to be active on the Lao frontier, such as extractive logging interests with ties to the military or provincial governor-patrons (Anonymous, 2000; Hodgdon, 2008). There are thus distinct frontiers at work in Laos, associated with different, elite fractions and power configurations, and different state agencies. These competing political-economic blocs are also in tension with each other, producing a spatially 'patchworked' frontier landscape involving different and at times

overlapping modes of resource regulation and population governance, and a hybrid state structure in Laos (see MacLean, 2008).

A 'first frontier', or the programmes associated with state-controlled socialist political structures in Laos, continues to have a deep transformative effect upon the Lao landscape. These frontier formations have resulted in localized ecological degradation, and sharp declines in forest cover and ecosystem integrity in many rural locations. Lao state policies of upland resettlement also continue to combine with the interests and outcomes of these forms of state-led resource developments. New resource towns linked to commercial extraction, such as the colonial French tin mining town of Ban Phon Tiou in Khammouane province (subsequently taken over by North Korean and Russian investors), or the town of Lak Xao in Borikhamxai province (associated with BPKP- or the Lao Mountainous Areas Development Company), were developed through this period. In the logging sector, the first frontier was often established in association with Vietnamese, Thai, and Chinese actors, through partnerships with the military, provincial governors and central Party officials (Walker, 1999; Anonymous, 2000; Hodgdon, 2008). On the ground, these extractions took the form of timber mining. While much of these forest resources were, (and continue to be), exported and streamed into global supply chains, it would be difficult to locate this process primarily as one of capitalist exploitation. Clientalist power politics and institutional arrangements within Lao state agencies could be considered just as crucial to its functioning (Hodgdon, 2006, 2008).

The additional layering of a 'second' frontier in Laos, through more recent patterns of capital-intensive, neoliberal inspired resource investment, including new land reform policies, overlaps with the processes and outcomes of the first frontier, producing complex, 'striated and patchworked' landscapes.[133] Land reform policies, including upland resettlement and land and forest allocation, are in some areas supporting these new export oriented, resource investment regimes through the freeing up of land and forest resources for capitalization (Baird and Shoemaker, 2007; Lestrelin and Giordano, 2007, Barney, 2007).

The contemporary Lao uplands can thus be understood as a hybrid, authoritarian-neoliberal frontier space, established through processes of new mapping and expanded forms of state territorialisation (through e.g. land registration and LUPLA), as well as through 'unmapping' or unhinged customary property rights (for example through upland resettlement and concessions development) (Tsing, 2005). To date however, the major cumulative effects of state development have been to restrict customary claims of upland communities, and to shift livelihood practices into increasingly enclosed and ecologically marginal sites. Because state agricultural extension services and marketization programs are only partially effective, many upland communities have been forced into short-term

[133] See also Robbins and Fraser (2003) on 'schizophrenic' forest landscapes in Scotland.

exploitation of their remaining resource assets to maintain levels of food security (Chamberlain, 2007).

What kind of state is emerging in Laos as a result of large-scale resource development and integration with global production networks? The literature on rentier and landlord states (Bridge, 2008, Yates, 1996, Ross, 1999) provides one framework through which we might consider the organizational logics of the Lao government. Ideas around a neoliberal-environmental state, or variegated neoliberalism provide another (Goldman, 2001; Brenner, Peck and Theodore, 2010). However, the relative weakness of the Lao central agencies in controlling the concessions process and in securing resource rents (sub-national scales of authority are also very important, as is the military), the continued reliance upon donor agencies (and more recently Chinese development aid and investment) for covering budgetary and expenditure positions, the entrance of new global regulatory regimes for environmental regulation; as well as the way in which certain transnational corporations have in effect become the dominant players in certain Lao territories covered within specific resource concessions, suggests that something more complex than a landlord or rentier state, or even variegated neoliberalism, is underway. What may be more useful is to focus upon how systems of governance and authority are being organized, at least in part, *though* strategic coupling, and foreign investment into resource concessions in Laos— and this is an issue that will be developed further in the following chapters.

4.5 Conclusion

This chapter has presented a series of key points concerning how strategic coupling is operating between global firms and the Lao state in advancing resource-based development. My particular interest has been on understanding how strategic coupling in the Lao plantation sector is linked to logics involving the capture and uneven distribution of resource rents between different actors. While the driving economic logics of the plantation and pulp sector were examined in Chapter 3, here I have also shown how institutional and regulatory factors in host country contexts are crucial for understanding the particular territorial and economic arrangements of how strategic coupling proceeds in practice in the resource sector. In the second part to this chapter, I contextualized this process of global investment and strategic coupling, and situated it into a broader territorial-institutional-development context (extending beyond the network metaphor)—through the idea of the making of a 'resource frontier' in contemporary Lao PDR.

In their conception of strategic coupling, Coe *at al*. (2004) write:

> "Our approach focuses on the dynamic 'strategic coupling' of global production networks and regional assets, an interface mediated by a range of institutional activities across different geographical and organizational scales. Our contention is that regional development ultimately will depend on the ability of this coupling to stimulate processes of value creation, enhancement and capture."

This chapter has discussed how the discourse of Laos as a frontier is being deployed through an imagining of the Lao uplands as an empty, available site for transnational

resource sector investment. Such discourses can, in turn, translate into very material outcomes in terms of boosting foreign direct investment into Laos. However, drawing upon scholars such as De Angelis (2004), Hart (2006) and Tsing (2005), I have argued that regional development in the context of Laos is taking on an extractive and rent-seeking character. A more critical approach to the 'frontiers of capitalism' can be a useful concept to link with strategic coupling, for understanding the making of contemporary geographies of enclosure in Laos.

In the next chapter I turn to considering in more detail the intimate territorializations and the re-makings of nature and communities that occur through plantation sector strategic coupling in Laos. Continuing to track the commodity network down to the local level, I examine how local governments and communities also become important actors on the making of resource production sites and frontier places, as well as how frontiers are produced through combined social-nature interactions.

Chapter 5: Power, Progress and Impoverishment— A Political Ecology of Transnational Enclosure in Hinboun District, Laos

5.0 Introduction

In this chapter I continue to follow the pulp commodity network, moving from the global and national scales to the watershed, village and household scales. I will consider how the organization of new resource supply zones establishes new territorial forms of regulation and control, new spatial patterns of development and impoverishment, and new political ecologies in a specific landscape setting and village context. Drawing upon scholars such as Raffles (2002) and Tsing (2005), I will examine how these new geographies of globalization are being produced not just through the combined logics of global production networks and developmental state power, but also through the active agency of local actors and villagers, as well as via ecological and biophysical interactions in specific socio-landscapes. As various scholars drawing upon actor-network approaches have argued, the materiality of different commodities influences the socio-economic relations in which those commodity systems are embedded (see e.g. Swyngedouw 1999; Watts and Peluso, 2001; Robbins, 2001b; Bakker 2003; Prudham and McCarthy 2004; Zalik, 2009). It can be more useful to understand local landscapes and ecologies as hybrid, human-environmental systems, formed through social-natural interactions, as well as through articulation with global commodity systems and other political-economic configurations. As political ecologists have shown, the local natures that are transformed through new global networks and new property rights regimes are not 'original' or first

natures. In Peluso's (1996) terms, the forest landscapes in Laos which are transformed through resource sector intervention would be understood as 'anthropogenic forests', that have already been subject to long histories of local management.[134]

In the Lao countryside, territorial formations and social property relations have been shaped through social processes both 'internal' to communities (e.g. customary resource management institutions and socio-cultural production practices), and through 'external' processes (including French colonialism, the Indochina War conflict, the post-war Lao socialist state, and new commodity production networks). Perhaps particularly for the case of Laos— considered by many a prototypical 'weak' developing state— I argue it is important to avoid an *a priori* assumption of a dominant cultural or economic role for external actors and global political-economic forces (Holt, 2009; cf. Goldman, 2001). While many of the political-economic forces that are transforming Laos do originate within a broader regional and global economy of firms and states and international organizations, in this chapter I will show how processes of enclosure, accumulation by dispossession, and agrarian transition take on modes that are quite distinctive to specific places in rural Laos. By integrating a series of insights concerning the production of economic space through global, national, and local scales, and the political ecology of property, resources and livelihoods, I develop a historically-informed analysis of the

[134] Peluso (1996: 511) writes of how a long-term historical perspective is required for understanding the anthropogenic forests of Kalimantan" "Examining only a moment in a landscape process, such as the burning of a forest patch to make a swidden or the extraction of products from the forest, obscures the larger management processes engaged in by local people."

production of a frontier economy, a social-landscape, and a community in the Hinboun Valley of central Laos.

In linking a political ecology of rural transformation in Laos, to the previous discussion of plantation and pulp sector global production networks, I aim to show how resource sector restructuring is transforming actual communities in particular places. I also pay detailed attention to regulatory policies in Laos around forest-land reform, in a way that highlights the co-production of GPNs, resource governance, and institutions (Neilson and Pritchard, 2009). In this way, an understanding of global commodity systems becomes linked to the production of concrete 'facts on the ground' that ushers in new and complex social and environmental changes, as opposed to understanding globalization only through abstracted forces of economic organization.

I begin the main section of this chapter with an overview of the contemporary context of resource sector development in central Laos' Khammouane province, and in Hinboun District. I then zoom in to examine the dynamic situation with resource concessions, legal and informal land tenure, and rural livelihoods in a primary fieldwork location—a village I call Ban Sivilay (all village names are pseudonyms in this dissertation). I develop an analysis of historical and contemporary territorialization projects, as related to official forest zoning and land policy reforms. While our primary empirical focus continues to be upon following the Oji Paper global production network as it takes spatial form in

Hinboun district, a more comprehensive account of the political ecology of development in Ban Sivilay— understood as a place and a lived community— also requires an analysis of other relevant economic interventions and state-making projects. As explained, a second nationally significant, joint private sector- Government of Laos resource project— the Theun-Hinboun Hydropower Company (THPC), is also a major catalyst for transformation in the Hinboun watershed and in this village context. In interpreting this community case study through ethnographic approaches, I focus in upon the cumulative ecosystem effects produced through the interactions of these two resource megaprojects, as their effects intersect with the existing anthropogenic and resource landscape, and with contemporary village livelihood practices.

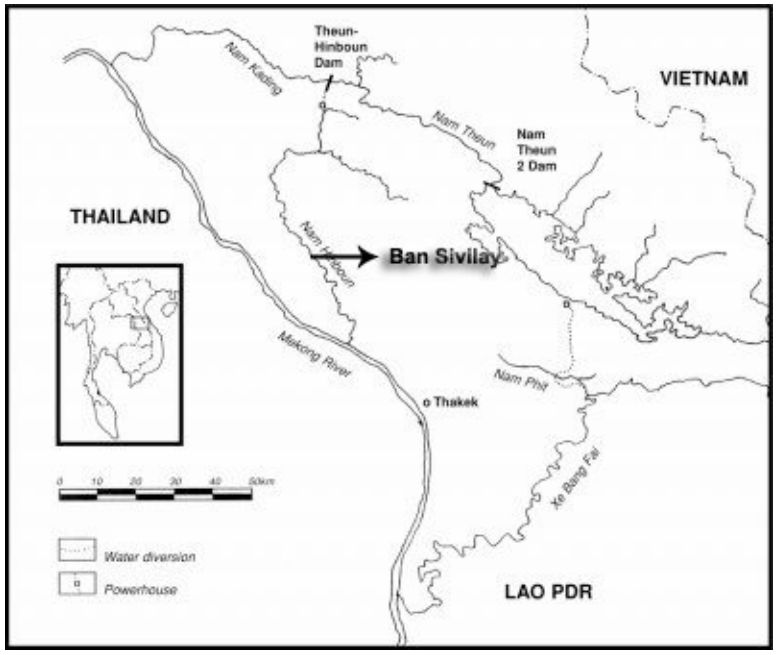
The effects of plantations and hydropower development are laid overtop of previous histories of material landscape transformation, ecologies which rural communities themselves have played a role in creating. The case study research shows how the changes ushered in through specific resource sector projects cannot be isolated from other social-ecological transformations. At the landscape and village scale, forest-lands, river-waters, and human communities do not function as distinct segments or 'sectors.' In the village of Ban Sivilay, I forward that the local outcomes of both tree plantation and hydropower development can only be fully understood when these interventions and their effects are considered in relation to each other, and to local resource management and livelihood systems. When the ecological effects of individual resource projects are

examined at the village and landscape scale, the social and ecological transformations escape modernizing political-administrative categorizations, flowing across territorial boundaries, and creating complex, hybrid interactions between the social and the natural (Robbins, 2001a,b).

Between this chapter and the next, using the tools of policy analysis and global ethnography (Burawoy, et al., 2000; Tsing, 2005; Hart, 2006), I continue to piece together this puzzle of globalization and local change, examining how local communities, and rural political ecologies become re-constituted through multi-scaled, networked configurations of political-economic and commodity power (Rocheleau, 2008). A complex set of new socio-ecological dynamics is being introduced in this village, which also illuminates the broader stakes of the project of turning resources into capital in contemporary Laos. The overlapping effects between two resource megaprojects is producing a kind of 'double displacement' effect in Ban Sivilay, as property rights are re-organized and as resource enclosures take effect. I show how place-based political ecology analysis can thus be usefully combined with global production networks and processes of strategic coupling, to better situate the actual implications of the Lao concessions boom.

5.1 Social and Economic Geographies of Khammouane Province, Lao PDR

The Oji-Lao Plantation Forestry Ltd. project has its primary concession holding based in the districts of Pakkading (Borikhamxai province) and Hinboun (Khammouane province). The village of Ban Sivilay is located within this concession, in the lower Hinboun River valley, some 15 km upstream from the mouth of the river where it joins the Mekong at Ban Pak Hinboun (see Map 1). As such, Ban Sivilay is also located within the recipient river downstream impact zone of the Theun-Hinboun Hydropower Project (THHP) and the Theun-Hinboun Expansion Project (THXP). A brief introduction to the general socio-economic situation in Laos' Khammouane province and Hinboun district, and an outlining of the key resource concession initiatives underway in this area of Laos, will aid in establishing the broader development context in which my primary case study village is situated.



Map 1: Fieldsite location in Hinboun District, Khammouane Province, Laos

The western border of Khammouane province follows the Mekong river, with its capital city, Tha Khek (population approximately 45,000) located on the east bank of the Mekong. Construction began in 2009 on a fifth Mekong-spanning bridge in Laos, that will link Tha Khek town to the Thai city of Nakhon Phanom. Heading east out of Tha Khek town, one passes over the Annamite uplands via the recently upgraded Route 12, passing into Vietnam at the Mu Gia Pass and onwards to the port city of Vung Ang (265 km). The Vietnamese port cities of Vinh (220 km following Route 8) and Danang (370 km from Savannakhet along Route 9) are the main alternate container port terminals for bulk, resource exports from central Laos (forest products, minerals, agricultural produce), including planned timber and woodchips produced from the Oji-LPFL plantations.[135]

During the Vietnam War, the Ho Chi Minh Trail network was established throughout southern and eastern Laos, including in the eastern portion of Khammouane province. In aerial interdiction programs conducted by the US Air Force, large areas of Lao territory along the Vietnamese border were targeted for saturation bombing, and today many agricultural land and forest zones remain heavily contaminated with war-era unexploded ordinance (UXO). Hinboun district, as located in the western portion of the Khammouane, while an occasional target for bombing missions, was not seriously

[135] The alternate export route for resource commodities from central and southern Laos involves a longer transport through Thailand to Laemchabang, on Thailand's industrialized eastern seaboard. Historically, this route has been both unreliable and expensive, due to variable Thai import regulations.

affected by the air war over Laos, and was not a site in which large numbers of Viet Minh or Pathet Lao soldiers were present during the war.[136] Major towns in Hinboun District did however become a temporary home for many minority community refugees from the eastern uplands at this time.

Today, Khammouane province has a total population of approximately 340,000 people; 85 per cent of who live in rural areas. Through the National Growth and Poverty Eradication Strategy (NGPES, 2003)[137], and Prime Ministerial Instruction 010 (June 2001), the Lao government has prioritized two of the province's nine districts as 'priority-poor' districts (Nakai and Boulapha, in the Annamite uplands along the Vietnamese border).[138] Three districts are classified as 'poor' in the NGPES (the mid elevation districts of Gnommalat, Mahaxai and Xay Bua Thong). Districts located closer to the Mekong, located within the lowland, wet rice-growing zones of the province, including the districts of Hinboun, Nong Bok, Xe Bang Fai, and urban Tha Khek, are classified as 'not poor'. However, as described below for Ban Sivilay in Hinboun District, there are still poor families, and poor villages, within the relatively more advantaged lowland districts.

[136] Available US bombing records, which have been mapped into the Google Earth program, indicate a small number of air strike locations within a 10 km range of the village of Ban Sivilay, on the lower Hinboun. See http://bbs.keyhole.com/ubb/ubbthreads.php?ubb=showthreaded&Number=599633
[137] The 2003 Laos NGPES was a document produced out of the World Bank and IMF sponsored Poverty Reduction Strategy Paper (PRSP) process.
[138] In the 2003 NGPES, 47 Lao districts, out of 141 districts nation-wide, are categorized as priority-poor districts, where the poverty rate is greater than 70 per cent. The specific indicators for poverty in Laos are based on Prime Minister's Instruction No. 010/PM (June 2001). Priority-poor districts also qualify for targeted support financing through the Government of Laos' Poverty Reduction Fund.

In national terms, Khammouane is amongst the wealthier provincial economies in Laos. The NGPES (2003: 107) estimates that Khammouane is the base for approximately 15 per cent of the nation's manufacturing capacity, still well behind Vientiane Municipality (with 55 per cent) but ahead of Vientiane province, Savannakhet and Champassak. In 2005, Khammouane was fifth (out of 17 provinces) for total rice production in Laos; and in the middle rankings for most other categories of agricultural and livestock production. Importantly, it is one of six 'fiscal surplus' provinces in Lao PDR.[139] Given the historical weakness of district administrations and a de facto decentralized national context, provincial–level authorities— particularly in fiscal surplus provinces— remain powerful political actors in Laos,[140] although this situation is changing with increasingly centralized revenue generation capabilities, and ongoing public administrative and budgetary reforms. In particular, large scale FDI resource projects— particularly hydropower and mining projects, and, to a lesser extent, agri-business concessions— tend to facilitate administrative and fiscal centralization in Laos, because of the way that revenues from these projects typically bypass provincial and local authorities, and instead flow directly to the central treasury in Vientiane capital.[141]

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[139] Along with Vientiane Municipality, Vientiane Province, Bolikhamxai, Savannakhet and Champassak.
[140] The World Bank (2008:2) for instance, notes: 'Given their significant fiscal independence and the dependency of the national level on provincial-level revenue collection, provinces have been subject to limited fiscal oversight from the national level, particularly those provinces that are net contributors to the central budget.'
[141] Compare with the diffusely organization revenue streams from provincial dominated logging operations in Laos (see To Xuan, 2009; Baird; 2010b).

Forestry— the resource sector that the central government arguably finds most difficult to control— is a key provincial industry for Khammouane. Both Khammouane and neighbouring Bolikhamxai province are home to some of the more advanced wood processing industries in Laos. During the peak extraction years in the late 1990s, there were about 5,000 people in Khammouane directly employed in the wood processing sector (EcoLao and Norplan, 2004: 41). For many years, the territory straddling these provinces was managed by State Forestry Enterprises (SFE) No.'s 1 and 3 supported by the Swedish International Development Agency (SIDA). These SFEs later became subsumed within the BPKP or 'Mountainous Areas Development Company'— headquartered in the forest industry boomtown of Lak Xao in Bolikhamxai. Today, the structure of the Khammouane rural economy is changing, with natural forest logging declining in importance, and hydropower, mining and agro-industrial plantations on the rise, with a strong export focus (World Bank, 2008).

The majority of the rural population of Khammouane are farmers by first occupation, and almost all rural communities are at least partially integrated into commercial markets for agricultural and resource commodities, or for wage labour. Farming and livestock production is often still based upon 'traditional' production systems, characterized by limited irrigation infrastructure, and low use of capital inputs or institutionalized credit. Both subsistence and commercial access to common property natural resources, including agricultural wetlands, swidden land, grazing land for livestock, fishing streams and rivers,

bamboo stands, forests for wildlife and NTFP collection, are important determinants of village livelihoods and food security in Khammouane province, particularly in the uplands. For ethnic Lao villages located in the Mekong River valley or in lowland tributaries, family-based, rain-fed, wet rice farming continues to be a dominant production system. Nevertheless, other smallholder cash crops are making a rapid entrance, including rubber, eucalyptus, tobacco, sugar cane, and cassava. Youth wage labour migration, primarily to Thailand, but also to urban Vientiane, is also widespread. These migrations, as well as the remittances flowing back to sending villages, have come to play an important role in changing family social structures, gendered identities, and the overall rural economy (Thongyou and Ayuwat, 2006; Chamberlain, 2006; Rigg, 2007; Huijsmans, 2008; Barney, forthcoming).

Khammouane is also home to a large number of ethnic minority communities, which together account for 40 per cent of the provincial population. Broadly, these include Mon-Khmer and Tai-upland ethno-linguistic groups.[142] As in much of southern Laos, settlements tend to differentiate by ethnicity proceeding from the Mekong River Valley (dominated by ethnic Tai-Lao groups) towards the Vietnam border zones. Chamberlain (2002: 524) notes that: "Within the limited radius of Khamkeut [Lak Xao], Nakai and the northern tip of Boualapha Districts, seventeen languages have been identified. Their

[142] It appears that there is an implicit Government of Lao policy regarding limiting the movements of Hmong communities into areas south of Bolikhamxai province, although some persons of Hmong ethnicity have recently been repatriated into Khammouane from refugee sites in Thailand (see Baird, 2010d).

considerable linguistic variety indicates a time depth for this branch of Vietic of perhaps 2000-2500 years."[143] As with elsewhere in Laos, in Khammouane ethnic identity has come to form a critical dimension of the distribution of rural poverty [see also Chamberlain (2001, 2007) for nuanced and locally framed interpretations of rural poverty and underdevelopment in Laos].

The overall geographical distribution of poverty in Laos thus corresponds closely with a number of key factors. Very poor districts in Laos are typically located in the uplands, with high proportion of ethnic minority settlements, with high forest cover, low population densities, low road access, and where communities engage to a greater extent in swidden agriculture (see e.g. Messerli *et al*., 2008). The recognition of this broad pattern is not to suggest that it is only upland-based ethnic minorities in Laos who are poor (urban poverty is a growing issue), or that it is only minority communities who farm through swidden systems (see Vandergeest, 2003). Indeed, the study village of Ban Sivilay is a prime example of the very complex nature of nearly all aspects of livelihood practices and ethnic identity in Laos. For instance, Sivilay village is located in a transitional area between the lowlands and the uplands, farmers practice both wet rice and swidden rice systems, combined with dependence upon fisheries, NTFPs, and livestock husbandry. Sivilay villagers have moved back and forth, with greater or lesser reliance upon these production systems over time.

[143] Vietic represents one of five branches of the Mon-Khmer ethno-linguistic family in Laos.

It is thus important to avoid a 'fixed' or containerized categorization of ethnicity and livelihood in Laos. Yet, to completely elide the historical connections and relationships between identity, poverty, and marginality can also be to miss an important set of dynamics with respect to the structuring of contemporary social inequality in Laos.

Anthropogenic and Resource Landscapes in Khammouane Province and the Hinboun Valley

The first industrial resource sector to be developed in Khammouane province very likely involved the colonial French tin mining interests on a tributary of the Nam Hinboun—the Nam Pathene. The French first developed the open surface mines at Ban Phon Tiou in the 1920s, and the area quickly became the most significant tin mining operation in colonial Indochina (Miller, 1946). By the 1940s, up to 6,000 Annamites (the colonial French term for central coast Vietnamese) were working the mines, reportedly under highly coercive conditions, earning Nam Pathene the epithet 'Valley of Death' by workers (Miller, 1946: 277)[144]. While the vast majority of the colonial mine workers were Annamites, local Lao populations were also recruited into corvee labour projects such as road building, by the French. Starting from 1936, Ban Phon Tiou was a site of strikes and labour struggles, and

[144] See also Ngô Vĩnh Long (1991: 116).

became the most important locus in Laos for recruitment into the Indochina Communist Party (Gunn, 1988).[145]

Tin mining operations continue today on the Nam Pathene, in the form of one Russian and one North Korean operation, established in the post-1975 period. The environmental standards of these operations are low. For years the mines have been a major source of tailings and pollution into the Nam Pathene and the Nam Hinboun. Sediment laden run-off affects not only the local ecology and the resident town population, but also flows, without any apparent treatment other than a settling pond into downstream systems.[146] The landscapes of Ban Phon Tiou and the Nam Pathene are a prime example of a colonial, and state-socialist-era resource production system, which has produced a particular landscape formation in the Hinboun watershed.

Khammouane is also amongst the provinces in Laos where the most widespread extractive logging has occurred. Accurate information on the logging sector is scarce, as much of it is illegal or based on discretionary, informal quota systems through top state and military officials (To Xuan, 2009; Baird, 2010b). However, in 1996, between

[145] Ban Phon Tiou was also previously the administrative and market centre for Hinboun district, before government offices were moved to Ban Pak Hinboun, on the banks of the Mekong, in about 1989.
[146] The Nam Pathene joins the Nam Hinboun downstream from Ban Sivilay, so Sivilay villagers are not particularly affected by the environmentally damaging operations of the tin extraction operations (although of course others, unfortunately, would be). Tests conducted in 2007 reveal serious pollution of the river from mining activities (RMR, 2007: 7). Ecolao and Norplan (2004: 43) also noted that a Pathene river sample from July 1995 showed "…high levels of several heavy metals including lead, zinc, tin and cadmium. The content of iron was extreme."

Khammouane and Bolikhamxai provinces, there were 9 privately owned sawmills, 5 joint venture sawmills, and 1 kiln-drying facility (EcoLao and Norplan, 2004). These industries were reliant upon timber sourced from Khammouane's forests, involving an estimated annual consumption rate of 325,000 m^3 (EcoLao and Norplan, 2004). There is also a plywood mill in Khammouane's Mahaxai District, and a chipboard factory in Khammouane, together with a total estimated wood intake of 100,000 cubic meters per year (EcoLao and Norplan, 2004). It is unclear how these industries have been affected by the drawdown in timber harvesting due to the decline of timber from the Nam Theun 2 hydroelectric reservoir inundation zone. A recent World Bank report (2009) indicated that wood processors including plywood mills in Khammouane were operating well below capacity. Official annual logging quotas in Laos have recently fallen to as low as 150,000 m^3, although actual logging volumes are very likely much higher. Sugimoto (2009: ii) for instance estimates total commercial timber withdrawals in Laos at over 1,300,000 m^3, which would be far beyond sustainable levels.

Data presented in Schumann *et al.* (GTZ, 2006: 55-57), derived from the national Department of State Assets, shows that Khammouane's timber revenues were amongst the highest for any province in Laos through 1999-2004. Khammouane was then far and away the largest forest sector revenue generator amongst the Lao provinces, a situation which was probably the result of the very high extraction levels associated with the (over)clearing of the Nam Theun 2 reservoir area in Nakai district. By 2003-2004,

provincial forest revenues had fallen, placing Khammouane just behind Champassak province, but still well ahead of third ranked Savannakhet province. While Schumann's data does not make clear how these revenues were generated (i.e. from raw log or sawnwood exports versus processed or value added wood exports), or how revenues were ultimately distributed between central, provincial, and local levels, the data is sufficient to indicate the declining significance of Khammouane's natural forests and its forest economy. Indeed in much of Laos, forest resources have been severely depleted, a situation linked to the high regional demand, poor governance, and overcapacity in the domestic wood processing sector (World Bank *et al*., 2001; Phanthanousy and Sayakhoummane, 2005).

As stipulated to the 1996 and 2007 Lao Forestry Laws, industrial-use timber should only be sourced from officially designated National Production Forest Areas (PFAs) with inventories and approved management plans. There are two such designated production forest areas in Khammoauane Province. One of these— the 110,000 hectare Dong Phou Xoi PFA, has been one of the focal areas for the World Bank-Finland sponsored participatory sustainable forest management program (SUFORD), and through its previous incarnation—village forestry through the World Bank FOMACOP project.[147] In 2004-2005, 35,000 hectares of natural forests in the Dong Sithouane PFA in Savannakhet,

[147] 'Suford' is the acronym for the World Bank- Government of Finland-Government of Laos 'Sustainable Forestry and Rural Development' project (2003-2008), while 'Fomacop' is for the previously enacted 'Forest Management and Conservation Project' (1995-2000).

and 10,000 ha. in the Dong Phou Xoi PFA in Khammouane, were certified through the Forest Stewardship Council (FSC), via SmartWood accreditation (Manivong and Sophathilath, 2007: 18; see also www.rainforestalliance.org).[148] According to Hodgdon (2006), the GoL has to date resisted the expansion of the participatory-sustainable forestry model promoted by the World Bank, due to divergent interpretations over legally established revenue sharing protocols between state agencies and local villages. The two certified PFAs in Khammouane and Savannakhet, produce approximately 3,000 to 7,000 m^3 per year of FSC timber. However, given that currently there is only one processing factory in Laos with a Chain of Custody certificate (just approved in March 2010),[149] to date the timber from FSC certified forest management areas in Laos could not be sold while maintaining the FSC label. There is also a log export ban (Prime Minister's Order No 15/PM, 3 August 2001), which blocks the sale of round logs including certified logs to any regional processors.

The restructuring and transformation of the Lao timber industry, from the socialist-era grouping of state forest enterprises (1980 to late '80s), up to (in some sites) World Bank

[148] The actual standards of forest management being maintained in donor-supported and SUFORD-FSC certified areas are the subject of some dispute. Observers note that these PFAs have only been permitted to be included within the sustainable forestry project *after* heavy timber extraction has already been allowed to occur; and that the actual volumes of timber in these Production Forest Areas are much lower than is typically indicated in inventories (FAO, 2008: 10; see also Baird, 2010b). Phanthanousy and Sayakhoummane (2005: 66) write: "The industry is engaging in a race to deplete the forest resources of production forest areas before they can be officially declared and put into participatory sustainable forest management." There have also been documented problems with the provincial allocation of surplus quotas, and questions concerning the legality of timber harvesting inside FSC certified forests (Jonsson, 2006), although the two PFAs have maintained their FSC accredited status.

[149] Certification of further wood processing factories in Laos, who could utilize the FSC timber, is being pursued with support from the WWF Global Forest Trade Network and The Forest Trust.

village forestry PSFM (mid 1990s to present), and international FSC certification systems (2005 to present), reflect changing political-economic systems and development ideologies, which have produced an uneven resource landscape, and a patchwork of illiberal and neoliberal governance patterns in rural Laos.

State Land Reforms in Khammouane

Another source of landscape transformation in Laos relates to government-initiated land reforms. Unlike most other regions in Southeast Asia, in Laos it has only been within the last 15 years that the state has come to play a strong bureaucratic and regulatory role in shaping agrarian land use in the uplands, through the devising of a functioning legal land code, and the issuing of land documents. As described in the previous chapter, the first state-backed land demarcation and land zoning framework to be established in upland Laos, came in the form of the Ministry of Agriculture and Forestry's Land and Forest Allocation Program (LFAP). The LFAP was conducted in Sivilay in 2001-2002, and it is a crucial program for understanding social property relations in the Lao uplands.

As devised by the MAF, in association with land use planners from Swedish SIDA and GTZ, and as codified through a Prime Ministers Decree (PM/03/1996), the Lao LFAP program was based upon a ten-step framework of 'Land Use Planning and Land

Allocation' (LUPLA).[150] In implementing the LFAP, it has been widely noted that the MAF became oriented towards the goal of limiting the conduct of shifting cultivation in the uplands to three-year rotational cycles ("the three-year rule" as it became known to myself and my research colleagues). This attempt by the Lao state to stabilize, and preferably to eradicate swidden, has been the source of much of the negative livelihood outcomes in Laos arising out of the LFAP. Researchers (including Roder, 1997; Chamberlain, 2001, 2007; Vandergeest, 2003; Ducourtieux, 2004; Ducourtieux *et al*. 2005: 519; Lestrelin and Giordano, 2007) have described situations whereby the LFAP restricted the spaces in which villagers could conduct swidden, without providing any viable livelihood alternatives (i.e. thereby missing the extension procedures intended in the LFAP process). This has lead to spiraling feedback cycles of shortened fallow, soil declines, weed infestations, increased labour demand, falling yields and increased rates of erosion. Research across Asia has shown that a three-year rotational swidden system is almost by definition ecologically and productively unsustainable, at least without extensive fertilizer and capital inputs.[151]

[150] The LFAP was implemented in Ban Sivilay through joint provincial, district and village land allocation committees, with the district levels often taking a leading role. Village LFA committees were typically comprised of officials from provincial and district extension services (PAFES, DAFES), and the forestry administration (PAFO, DAFO), the village headman, a neighbouring village headman, and the village-level representatives of the national organizations: the village agriculture and forestry leader; the village Head of Security; the village Lao Women's Union representative; and the Youth Committee representative.

[151] Conklin (1954, 2008: 106) writes: "It is difficult to set a minimum period of fallowing as necessary for the continued, productive use of swidden land by reclearing. Many variables are at work. A reasonable limit seems to be somewhere between 8 and 15 years, depending on the total ecology of the local situation. Swidden farmers are usually well aware of these limitations."

The actual implementation and enforcement of the LFAP was highly uneven across Laos. In some villages, four or five upland plots were allocated per household; in others the T-LUC documents were issued but not enforced.[152] In many cases both the village and district copies of the T-LUC documents were lost, damaged, or even reportedly used by villagers for cigarette rolling papers. In Hinboun and Pakkading Districts, the LFAP system has been used in a somewhat different way than elsewhere in Laos, as described in Ducourtieux *et al.* (2005) and by other researchers. Rather than manipulating the LFAP process to favour the zoning of conservation and protection forests (and thus contributing to the effort to reduce swidden), in central Laos the LFA program has been used by state authorities to delineate village lands as degraded forest, which are then available for zoning and reforestation to plantation companies. In both strategies however, reducing or eliminating swidden has been an over-riding objective.

At the district level there are often more pragmatic approaches taken to upland swidden practices, and an everyday realisation by officials (who are often villagers as well) that this form of agriculture represents the food security foundation for thousands of families in rural Laos. In Hinboun district for example, there seemed a tacit agreement between forestry officials and rural villagers that the state will not ask of, and the villagers not

[152] Shifting agriculture stabilization through the LFAP may have been more strongly enforced in northern Laos, where both swidden systems and forests are often under more intensive pressure. It should also be noted that Laos is not the first Southeast Asian country to devise a variation on a "3 year rule" for regulating land use. Cramb (2007: 170-71) for instance, writes: "It is perhaps noteworthy that customary law in Malacca specified that three years of non-use led to the forfeiture of rights to wet padi land, though the right to a hill padi clearing 'lasts as long as the land is occupied, which is usually a single season (citing Maxwell 1884: 358)."

speak of, swidden farming. In Hinboun district, the three-year T-LUC system restricting swidden to three or four specific plots was also never implemented. There is little direct attempt to eradicate swidden in the Hinboun valley, which is perhaps reflective of an awareness of local officials that villagers have become more reliant upon swidden as they have lost access to productive paddy along the Hinboun River.

However, village shifting cultivation land and degraded forestland are being allocated for tree plantation development to companies through the LFA process (and through its most recent iteration- Participatory Land Use Planning'), and the promotion of tree plantations is a key overall strategy for transitioning villagers out of swidden agriculture in these villages.[153] In this sense, there can be a confluence of state interests regarding re-territorialization through land use zoning exercises, swidden eradication, and the implementation of plantation sector development through land concessions.

Land Concessions in Khammouane Province

Recent years have witnessed the entrance of industrial plantation and agri-business firms into Khammouane province, including my case study firm, the Oji-LPFL pulpwood project. There is no comprehensive and updated information available on the other industrial plantation projects in operation or planned in Khammouane province, although

[153] The district committee charged with implementing the LFAP would be translated into English as "The Committee of Land Use Planning and Land Allocation, Poverty Reduction and Elimination of Slash and Burn Shifting Cultivation and Finding Permanent Jobs.

Schumann (GTZ, 2006, which is based upon this author's survey information), presents partial data, which includes agribusiness ventures in palm oil, rubber, cassava and eucalyptus.

As outlined in previous chapters, the development of eucalyptus plantations in Laos is also linked to larger regional economic logics and the requirements of capital-intensive wood pulp processing in Japan and China. It is not accidental that Oji-LPFL selected the location of Hinboun and Pakkading districts in Laos for their investment. In addition to the position these sites enjoy in relation to highway infrastructure, Hinboun and Pakkading districts are also located within an orographic rainfall zone, which is formed as moisture-laden monsoon winds emanating from the Indian Ocean and the Gulf of Thailand encounter the elevated slopes of the Phou Hinboun range and the Annamite uplands. Rainfall is significantly higher in these two lowland Lao districts (averaging 2,600 mm per year) than is the case across the Mekong River in northeast Thailand (Isan).[154] The forests of the Hinboun valley are therefore much richer, supporting a greater diversity and biomass of vegetation and wildlife, than is the case across the river in Isan, or, for example as compared to the dry dipterocarp forests of Savannakhet province to the south. Comparatively higher rainfall in Hinboun district also makes this a prime setting for smallholder and company-based investments into rubber plantations, which are being steadily developed by investors along Route 13 south, in some

[154] Average yearly rainfall in western Isan can be as low as 1,100 mm per year, increasing to 2,300 mm in Thailand's Nakhon Phanom province, across the Mekong from Khammaouane (Blake, 2001: 31).

competition with other land uses including natural forests and plans for eucalyptus and acacia expansions.

The BGA-Oji Pulpwood Project in Khammouane Province

Oji Paper report that they are seeking to export 450,000 bone dried tonnes (BDTs) of woodchips per year from Laos, which would make the Oji-Lao Plantation Forestry Limited (LPFL) project the company's largest single in-house source of woodchips outside of Japan. Under the terms of the contract agreement, Oji holds prospecting rights to locate up to 50,000 hectares of suitable plantation land, within an identified concession area of 154,000 hectares, extending between Hinboun district in Khammouane province, and Pakkading District in Bolikhamxai province. There are approximately 56,000 Lao people, living in 94 villages, inside the main Hinboun/Pakkading Oji concession zone. The terms of the state lease agreement appear to be very favourable to the company (land lease fees are either very low, or have been waved entirely). However, the Government of Laos has also taken a 15 per cent equity share in the project, which can be understood as reflecting a strategy of trading land lease fees for a share in the LPFL Company.

Prior to being purchased by Oji in late 2004, BGA Forestry Ltd. had established approximately 1,600 hectares of acacia and eucalyptus in their concession area. Oji-LPFL was able to meet their target of 4,000 hectares planted in the 2005-2006 season. According to the Vientiane Times (2010), as of January 2010, LPFL had developed

19,600 hectares, in 121 villages, spread over 8 districts in central and southern Laos. LPFL will operate the concession for 50 years, with a projected overall investment of 507 billion kip (approx. US$60 million).

The public literature released by Oji LPFL indicates some attention to projecting a positive image regarding their investment in Laos. Oji's on-line wood procurement policy states that the company aims to seek third party environmental certification status for each of their eleven global plantation holdings. That said, the company is proceeding with the Laos project even though they have not published any detailed studies on the potential effects upon villagers of zoning one third or one half of village territories in Hinboun and Pakkading districts for fast growing plantation production. BGA Plantation Forestry Ltd.'s twenty-nine page Social and Environmental Impact Assessment (EcoLao, 2002), does not address any significant livelihood problem areas, such as how the plantation project might affect local agricultural production or forest use. The Vientiane Times (2010) reported that district officials in Bolikhamxay and Khammuan provinces had requested Oji Lao Plantation Forest Company to provide clear and detailed environmental and social impact assessment report and management plan. By the time a full ESIA is submitted to the regulator, the Water Resource and Environment Agency, for approval, it would appear that the LPFL project will be well on its way to achieving the overall plantation targets.

In April 2006, Oji's jointly-owned plantation in Quy Nhon (Binh Dinh province) Vietnam, was the first in that country to qualify for a Forest Stewardship Council (FSC) sustainable forest management certificate. Preparations by LPFL are apparently underway for an application to the FSC forest management certificate program. In addition, Oji-LPFL has begun investigations into the Clean Development Mechanism program, operated under the United Nations Framework Convention on Climate Change. In 2005, a Feasibility Study[155] was published by the Global Environment Centre Foundation for how Oji might qualify for CDM status in Laos. The Oji-LPFL CDM proposal is organized around developing a small scale, biomass fuelled electricity generation power plant, from vegetation cleared during plantation establishment, and from postharvest wood residues. It is suggested that this will be sufficient to generate electricity to a number of communities within the project area. Yet, the Oji CDM proposal statements on swidden agriculture and the role of forests in supporting rural livelihoods are misinformed, perhaps willfully. The study reduces swidden systems in Laos to questions of legality, and denigrates this form of agriculture as incapable of providing a formal, "steady income." As will be shown below however, the income opportunities provided by company plantation labour regimes are scarcely more secure (see also e.g. Noor and Syumanda, 2006, for case data on estate plantation labour regimes in Indonesia). New livelihood risks are being introduced into rural villages in Laos, while the natural resource 'safety net' is removed from underneath them.

[155] See "CDM Project Activities in Laos: Eucalyptus Plantations and Use of Biomass Energy", available at http://gec.jp/gec/gec.nsf/en/Activities-CDMJI_FS_Programme-List

The other major resource development sector in Khammouane province involves hydropower, specifically the Theun-Hinboun Power Company (THPC) and the Nam Theun Power Company (NTPC). As both of these projects are major drivers of ecological change along the Hinboun River valley, and for the residents of Ban Sivilay, a number of their key characteristics will be outlined next. Examining hydropower development in relation to plantations in the village case study will show how, through the ecology of landscapes and local village practices, different commodity sectors are not isolated. Plantation and hydropower development shape and influence the effects of each other at the landscape and community scales, and combine in their displacement and enclosure effects. In the context of rural Laos, the establishment of plantation projects can thus produce connections beyond the confines of the commodity network itself – with other extractive industry activities, with social-natures, and with broader agrarian relations.

Hydropower Development in Khammouane Province

Beginning operations in March 1998, the 210-megawatt, US $260 million Theun-Hinboun Power Company (THPC) project was a pioneering hydropower installation in Laos. It was the first hydropower project built under the independent international power producer (IPP) model (coming online in 1998, just before the IPP Huay Ho hydropower project on the Xeset river in the Bolavens), and it was amongst the first private companies

in Lao PDR to conduct and implement an environmental management action plan.[156] THPC is a 30-year build-own-operate-transfer (BOOT) project, notable for its inter-basin transfer design, which at full capacity diverts 110 m^3 per second of water from the Nam Theun-Nam Kadding watershed into a small tributary of the Hinboun River—the Nam Hai. The hydro-electricity generated from the THPC power station is conveyed along high voltage transmission lines, crossing the Mekong River at Thakhek-Nakhon Phanom, and feeds into the electricity grid of northeast Thailand. Net project revenues accruing to the Lao government were reported at US $23 million in the year 2000, with revenues estimated to increase to approximately US $29 million per year by 2010 (Virtanen, 2006; ADB, 2003).

The project has attracted much NGO criticism. For critics such as Usher and Ryder (2007), the THPC project is characteristic of a strategic shift by countries such as Sweden and Norway, to tie donor support to the development of extractive resource projects, through which contracts can be directed towards northern companies and institutions.

The second major hydropower venture in Khammouane province is the recently completed, 1,080 mega-watt Nam Theun 2 project.[157] At a cost of US$ 1.25 billion, NT2

[156] Electricite Du Laos (EdL) holds 60% of the shares in THPC, while MDX/GMS of Thailand and Nordic Hydropower (involving Sweden's Vattenfall and Norway's Statkraft) hold 20% of the shares each..
[157] Financing approval for Nam Theun 2 was secured in 2005 from the World Bank; followed up by loans from a series of other international financial institutions. NT2 is a BOOT project; after 25 years full ownership will be transferred to the GoL. It is projected that the GoL will receive approximately US $2 billion in royalties, taxes and dividends through the concession period (not including dividends to the

is currently the largest single investment project in the country.[158] NT2's inter-based transfer design is similar to THPC, diverting an average of 250 m^3 per second from the Nam Theun river watershed, via a large reservoir constructed in the Nakai plateau, into the Xe Bang Fai river, which in turn empties into the Mekong. This diversion will double the dry season flow of the recipient river, the Xe Bang Fai, and add about 10 per cent to its wet season flow. The construction of the NT2 project introduces a new set of ecological variables for THPC, in that the former will draw down river levels in the Nam Theun-Kadding system— river flows upon which THPC depends. To ensure continued economic viability, THPC is currently constructing a new storage reservoir on the Nam Gnouang, a tributary of the Nam Theun, which joins the Nam Theun upstream of the THPC diversion weir, but downstream of the NT2 dam (See Map 1 above). The construction of a 65 meter high Theun-Hinboun Expansion Project (THXP) dam on the Nam Gnouang will result in the flooding of about 106 km^2 of river bank agricultural land and garden terraces, to a point some 50 km upstream of the dam site.[159] The end result of these multiple river diversion projects will be a doubling of capacity of the Theun-Hinboun Power Company, as well as a doubling of the amount of water diverted from the Nam Theun-Kadding watershed into the Nam Hai-Hinboun watershed.

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private investors) (World Bank, 2005). As with THPC, the NT2 has become involved in considerable controversy regarding the projected downstream effects, for both the recipient river (the Xe Bang Fai) and the drawdown river (the Theun-Kadding) (see reports available on www.internationalrivers.org).

[158] Although the massive 1,860 MW Hongsa lignite coal fired power plant in Xayabouly province is projected to be a US $4 billion project.

[159] The creation of this THXP reservoir on the Nam Gnouang will enable improved regulation of water discharges into the THPC headpond, thereby providing more consistent water supplies in the dry season, and permitting more energy generation and higher plant utilization factors at the main THPC generating station at Ban Nahin.

Delineating the actual and projected social and environmental outcomes of all three projects— THPC, NT2 and THXP— has been the subject of an ongoing issue between the companies involved, the World Bank and ADB, various agencies of the GoL, and external civil society organizations including the Berkeley-based NGO International Rivers and the Norwegian group FIVAS.[160] While the hydrological relationships are complex, experts have projected that these water diversions will have two major effects for the Hinboun valley hydrological system.[161] First, it will exacerbate the already significant riverbank erosion rates in the recipient Nam Hai-Hinboun, the implications of which will affect local villagers (through loss of farmlands and riverbank gardens due to erosion) and flow downstream on the Hinboun system (through increased sediment deposits on the Hinboun river floor). Second, the THPC diversion and the THXP/NG8 expansion will cause flooding in the Nam Hai and Hinboun systems to become more frequent, more prolonged and deeper than is presently the case (RM Watson, *pers. comm.,* 2007).[162] As expanded upon below, these interventions have direct livelihood implications for villages living downstream on all three watersheds, including for

[160] There are no independent domestic NGOs within Laos, and in 1998 an international civil society group in Laos was shut down by the GoL for criticizing the NT2 project. Recent legislation in Laos around Non-Profit Associations (NPA's), following Vietnam's lead, has opened the door for more local civil society groups to emerge however.
[161] The effects on the lower Nam Kadding have also been severe, and understudied.
[162] Usher and Ryder (1997: 92) also notes that much earlier in the project, a senior project ecologist from Sweden's Vattenfall company identified a series of potential problem areas with THPC, including effects on water quality, fish production and migration, and sediment transport.

villagers in Ban Sivilay on the lower Hinboun (see FIVAS, 2007; Barney, 2007; International Rivers, 2008; BankTrack *et al*., 2009).

This section has explained how new commodity landscapes created by logging, hydropower and plantation development in central Laos are producing different patchworks of environmental governance and socio-ecological transformation. Next I continue to focus the attention, down to the scale of particular villages in the Hinboun Valley within the Oji LPFL concession area, and specifically the community of Sivilay, to understand how a commodity network becomes territorialized and materialized in a village location.

5.2 A Political Ecology of Cumulative Effects: A Case Study of Ban Sivilay, Hinboun District, Laos

Introduction to Ban Sivilay

Ban Sivilay is a small village of some 48 households and up to 260 individuals, located along the mid-lower Hinboun River. The village is 7 km east by an unsealed access road from Route 13 South— Laos' main north-south transportation corridor, and upstream from the district town of Ban Songhong, where the Hinboun crosses Route 13. Prior to arrival in Sivilay, I had no particular intention of examining the outcomes of hydropower development in my field research. However, after Sivilay village had been selected as my primary research site, and as I began to understand something about villager livelihoods, I

soon discovered that a comprehensive story of forest-based livelihood transformation in Ban Sivilay involving the Oji LPFL project, could not be told without also referring to the ecological changes in the Hinboun watershed ushered in by the THPC project. By necessity, to make sense of the combined processes at work in the village, my research crossed disciplinary and professional boundaries, extending my analysis from Lao investment policies, land reforms and the political economy of the regional forestry and paper sector, to include hydropower ecologies and compensation and mitigation schemes. As will be discussed, my research on forest-land development was also influenced by local circumstances to include a range of social development issues, including rural and cross-border labour markets and village youth out-migrations.

As with the neighbouring villages along the Hinboun River, the people of Sivilay are reliant upon an array of livelihood strategies. Historically these have included fishing, collecting a wide range of plant and animal forest species, cultivating upland and lowland rice, the raising of livestock, and seeking out opportunities for wage labour. Indeed, the historical staple and primary livelihood activity for Hinboun valley residents may well have been related to fishing as opposed to rice cultivation. Natural resources are used for both immediate household use, or sold to commodity traders for cash income. Cash is then used to purchase other staples or commodities, to pay for health care, for participation in festivals, contributions to the village *vat* and so forth. While village livelihood production in Sivilay has its primary territorial foundation in the village spaces

and its resources, farmers in Ban Sivilay have also long been linked to commercial activities, and integrated into market networks which extend into Khammouane province, across the Mekong into Thailand, and beyond. Although some of the older female village members have never ventured far beyond the district's commercial centre of Ban Songhong, others villagers settled more recently in the village from elsewhere in central or southern Laos, typically through marriage.[163] In addition, at present, Ban Sivilay is experiencing intensive rates of out migration of young people in pursuit of new wage labour opportunities (Barney, forthcoming). Unmarried (and some married) young people are leaving the village for employment in the markets of Tha Khek or Vientiane, in the rubber plantations of *Isaan* (Northeast Thailand) across the Mekong, as housemaids in the suburbs of Bangkok, or even to work as far away as the shrimp processing plants in Songkhla, southern Thailand. My fieldwork indicates that for the village of Ban Sivilay, this rate of out labour outmigration is a novel phenomenon, only accelerating within the last five to six years (Barney, forthcoming).

It is important to be cognizant of the pitfalls of 'romanticizing' aspects of tradition and village life in rural Laos (e.g. Kemp, 1991; Hirsch, 1989; Rigg, 1991). While rich in culture, community, and natural history, being a peasant farmer in upland Laos is also to be poor and marginalised. It is a life of toil for relatively low returns. At the time of fieldwork in 2005-06, the oldest living member of Ban Sivilay was a man of only 68

[163] As is the case with matrilineal lowland Lao Buddhist culture, for the Tai Bo along the Hinboun River it is traditional for husbands to relocate to live in their wife's house and village.

years. No one has ever completed high school from the village, and there is living memory of epidemics that have decimated local populations. Compared to this difficult past, some Sivilay residents state that there have been improvements in living standards in recent years with the arrival of the Theun-Hinboun and Oji Paper companies, especially as related to health. However, as explained below, these benefits should also be placed in a broader context, of significant losses experienced due to development-induced environmental changes. At the same time, other actors, mostly external to Laos, have been considerably enriched by the Hinboun's resources. This section of the dissertation attempts to understand these environmental and political changes, and to situate them within village and state dialectical relations, local processes of agrarian change and an incipient process of landholding differentiation (Hart, Turton and White, 1989).

Village Histories

For Ban Sivilay residents, oral memories typically did not extend past their grandparent's time, and more detailed archival and fieldwork would be required to understand the colonial and war-era history of the Hinboun Valley. According to village elders however, Sivilay is perhaps more than 100 years old. A key event in the history of the village was relayed by a respected village elder, and the *nai ban* (village head), which relates to the next village upstream. At the time of the 1975 revolution, both the current Sivilay *nai ban* and this elder lived in Ban P-, which was then was a larger village than it is today. However an illness swept through Ban P-, causing the deaths of many people. Many

villagers then left to join Ban Sivilay, as well as to another nearby village, to escape the epidemic. The stories told of the late 1970s epidemic provides an indication of the very precarious circumstances in rural Laos at that time:

> 'Almost half of the population of Ban P- village died at that time. One or two people would die each day. Everybody left the village. After some time, some people started to move back to Ban P- to work on the paddy. Then more people came back. They said that the spirit was angry in Ban P-, because villagers had sold a drum from the cave.
>
> The deaths were in month six. People would have a fever one day, and die the next. It was just a fever, there were no other symptoms, and it affected every age group. Before June of that year, one or two people died per month. But then in June, three people died in one day, and then it started. This was the same as what happened in Ban D-, in 1983-84.' (Village Interview, July 30, 2006).

The histories told in Ban Sivilay often situate the village and its people in relation to other nearby communities. There is a close but often hierarchical relationship between Sivilay village and the others on the lower Hinboun River, based upon inter-marriage, culture and festivals, state administrative organizations, resource practices and trading networks. Before the *tasseng* (sub-district) administrative level was abolished country-wide by the Lao Government in 1991, the *tasseng* administrative cluster included 7 villages. These Hinboun River settlements, as well as other nearby communities situated on Highway 13, continue to comprise the core extra-village social network for Sivilay residents.

In the late 1970s, the Pathet Lao government was also attempting to implement a country-wide agricultural collectivization program (*sakhon*), in line with Marxist-Leninist

ideology of the Lao Communist Party (Evans, 1990; Bourdet, 1995, 163-65; Ducourtieux, *et al*., 2005). Fieldwork did not provide an exceptionally clear picture of this time for Ban Sivilay, not least because many villagers expressed some discomfort with talking about the period, and I did not wish to press the issue. However, one village elder, who was *nai ban* in 1975, at the young age of 30, forwarded the following perspective on the era of collectivization:

> "The government wanted to collect the people in groups, for *sakhon*. In Khammouane province, Nong Bok district was collectivized. For two or three years we also did this in Sivilay. We had to count labour persons to help, working in small groups. It was up to the people to form their own groups. You could ask for help, for example, to build a house.[164] But you had to pay with animals. After the revolution, we changed back. I did not like collectivization, I did not like to be controlled. People took advantage of the chance to be lazy. We only harvested a little in those years, and there were problem with absenteeism. There were problems. At that time, nobody wanted to be *nai ban*!' (Interview, January, 2006).

In a discussion over dinner one evening, one village informant provided an indication of the political violence directed towards politically suspect villagers in Hinboun district in the period after the 1975 Revolution, including an assertion that five villagers in the surrounding area had been taken away and executed. In part due to language limitations, however, I was unable to confirm the details of this account. Indeed, at this point in the conversation, my field assistant simply refused to translate any further, stating that such stories were 'for Lao people to consider'. I respected my assistant's decision to stop translating, and did not press the issue. Clearly however, the village informant was

[164] It is usually noted that agricultural collectivization in Laos was only applied to wet rice farming (e.g. Bourdet, 1995: 164). *Sakhon* may have been organized somewhat differently in this village.

touching upon political histories which remain very sensitive, and even my young field assistant was tuned in to the politics involved. The possible effects of the political turmoil and violence in the Indochina War period, upon village inter-personal relations and institutions, and the relationship between communities and the Pathet Lao state, can only be gestured towards here (but see Evans, 1990). It is difficult to pinpoint the lingering effects that collectivization and the enactment of political violence might have upon individuals in contemporary Lao society, although, from my perspective, there is a background sensibility that Lao people are careful about voicing criticism of the Lao Government, the Party, and its policies.

Today, strong social solidarities continue in Sivilay village, through numerous formal and informal social institutions. I do not understand these community institutions as formed in some sort of inherent oppositional relationship with the state or markets (Kemp, 1991). It seems more apt to locate 'community' as a mediating factor, and a set of middle institutions, between villagers/households and external forces including corporate and state actors (e.g. in rural Sarawak, see Cramb, 2007: 310).[165] More pointedly however, it also becomes important to understand the relational connections between communities and state formation in Southeast Asian contexts. Writing on upland Indonesia, Li (2002: 277) writes: "the historical record suggests that state formation and community formation

[165] "…the longhouse community actively mediated between farm households, the market, and the state, contributing to collectively chosen outcomes ranging from protest, delay and resistance on the one hand through to negotiated participation on the other" (Cramb, 2007: 310).

have proceeded simultaneously as part of a single process" (see also Li, 1999; Hirsch 1989 in Thailand; and Agrawal, 2001 in India). I observed many examples of extended family-based and community-supporting social institutions during fieldwork in Ban Sivilay, including: women's forest product collection teams; men's hunting teams and collective fishing teams; communal contributions to the temple and supporting infrastructure (e.g. building a *vat* washroom for monks); the organizing and holding of festivals; loans of rice extended to family members; catching a ride to the district centre on the back of another family's tractor (*rot tai naa*), the enforcement of community standards for how parents should discipline their children; and support of fellow villagers who have landed into conflict with the plantation company.

However, more individualistic, gender-based, inter-generational and intra-household-based social relations also play an important role in village social and political economic dynamics. The latter can take the form of, for example, a young son-in-law labouring in the upland fields of his father-in-law. Two other examples may suffice to illustrate. One example comes from the leading entrepreneurial farmer in the village, and the former *nai ban*. During my stay, this person sold a number of his cattle and buffalo, which enabled him to purchase a new, diesel run, rice milling machine— the first in the village. As a result, instead of villagers having to travel to Ban Songhong to mill their rice, they could now do it for the same price in Sivilay and save on their transportation costs as well. Potentially, this situation could have saved money and presented a new livelihood

opportunity for the poorest families in Sivilay. As part of the fee for milling the rice, the miller in Ban Songhong also kept the husks, which are an excellent feed source for pigs and chickens. If the poorer families of Sivilay could keep the husks from their own rice harvests, this could provide a real opportunity to expand their range of food security and their cash income options into livestock. (While rice can be dehusked through a foot operated wooden pounder, this also requires a significant amount of time and energy, the labour for which comes at a cost for poor households). Yet, the Sivilay entrepreneur who managed the new village-based mill did not relinquish the claim over the husks. As he now enjoyed a competitive monopoly, in addition to the usual town-based processing fee (paid in the form of a percentage of the rice milled), he also kept the husks, just like the miller in Ban Songhong. As a result, within a few months this village entrepreneur had a new source of livelihood income, *and* a collection of well-fed pigs and chickens around his house, while his fellow villagers— the community— only gained on the reduction in transportation costs.

Another example of the close relationship between communal and more hierarchical aspects to village life could be drawn from the village's fundraising efforts to support the construction of a new outhouse building for the communal temple (*vat*). Merit collections were drawn from most households, including from relatively well off and poor households, to pay for the modest structure. However, (just as with a corporate donor list outside of a university building), the name of each village (male) household head who

donated to the *vat* washroom project was painted on the outhouse structure, closely ranked from most generous donor to the least, with amounts included in Lao kip. My simple point with these stories is to note that there exists both social solidarity and more competitive relations in this village, which are reflective of both a kind of 'moral community', and individualistic and entrepreneurial orientations.

Thus, local spirit cults, Theravada Buddhism, and the lived experience of working and living in a village place are all key aspects of social relations and identities in Ban Sivilay. As I explain next, communal institutions are also at work in changing resource management practices and property rights.

Social Property and Agrarian Differentiation in Ban Sivilay

The available historical documentation on the particular socio-environmental history of Hinboun district is thin, although I did not undertake archival research on the history of this area. With accounts from available grey literature, including government documents, and local histories, I present evidence to support the argument that, historically, there was little in the way of internal agrarian class formation in Ban Sivilay, understood in terms of solidified differential ownership of agricultural land.[166] However, by the time of fieldwork in 2005-2006, I show how a transition was occurring towards differential

[166] I acknowledge other contexts in Laos where uneven private land ownership has long been a factor in agrarian relations, for example in Khong district, southern Laos, or on the Vientiane plain. This is not to argue that there are no significant wealth disparities within Ban Sivilay— there are. But historically, I suggest that village poverty has not revolved around differential access to land.

internal resource access and land ownership. I then present some conclusions about social property relations and agrarian transition in Sivilay, drawing in part upon Scott's (2009) arguments regarding access to common property resources and the persistence of egalitarian village social and economic structures in upland Southeast Asia.

In understanding social property and agricultural production systems in Sivilay village, it is first important to note that there has been an oscillating inter-relationship between upland and lowland rice farming strategies. This notion comes out of village interviews towards the end of my field study, when an informant, Mr. K, mentioned that when he first married into the village of Ban Sivilay, farmers did not plant lowland wet rice on the Hinboun floodplain. Instead, up until the 1970s, they relied exclusively on hill rice. Mr. K's explanation was that prior to the 1970s, Sivilay farmers did not own any draught animals, making tilled agriculture impossible. A more extended interview with a village elder, who was raised in neighboring Ban P- but married into Sivilay village, corroborated this view of a previous greater dependence upon upland swidden, but also presented a slightly different rationale. When a younger man, this second informant would visit Ban Sivilay from Ban P-, a short walk away. He suggested that before the revolution of 1975, it was true that the farmers in Sivilay did not plant any lowland rice along the Hinboun valley floor, even though, strangely it seemed to me, the farmers in his home village— Ban P-— did plant wet rice at the time. According to this history, while it was true that Sivilay farmers did not have draught animals at the time, it was also only

after some new farmers married into the village, with good experience in planting bunded, tilled, wet paddy rice, including two men from Ban Lao Nat on the Thai side of the Mekong, in Nakhon Phanom province, and one man from southern Laos, that the other farmers in Sivilay actually learned and applied the technique:

> "They [the 3 farmers] started *naa* [wet rice] before the revolution. They grew banana and other plants and sold the products. They got some money, and then bought buffalo, and then they planted *naa*. They taught the [Sivilay] people how to do *naa*, because they had no skill. But after Mr. P and Mr. T started doing *naa*, then nearly every family also did. Just three families started, and then after the revolution, the others started also." (Elder K., Author Interview, Sep 28, 2008).[167]

For the historical situation of Ban P- meanwhile, this elder stated:

> "Some families did *naa* permanently. But some years they had flooding [on the Hinboun], so to prevent a problem, they also did *hai* [swidden rice], to support the family. And some family did *hai* only. This was because they were afraid of the flooding, that they would lose their crop. Perhaps only the higher [elevation] paddy land would not be affected. Usually, if there is no flooding, then *naa* is better than *hai*... *Hai* requires more labour than *naa*. But because my family was familiar with *naa*, I learned to do it easily." (Elder K. Author Interview, Sep. 28, 2008).

Interviews revealed that in more recent times it was especially the younger families, who had not yet invested the labour to construct their own lowland paddy fields, or who lacked draught animals, that were most likely to be fully reliant on upland *hai* fields in Sivilay village. For those who also held wet rice paddy holdings, mixing *naa* with *hai* may also

[167] There is a long history of debates in Southeast Asia around the relative productivity of hill rice versus wet rice under different circumstances. Farmers in Sivilay are of the opinion that wet rice is the more net-productive option in their locale (that is, before the current hydropower-induced flooding regime).

have been a risk control strategy against occasional flooding events, or against crop damage from drought or pests, that could affect lowland but not upland paddy, or vice versa. With this sense of agricultural history in mind, I move to examining recent changes in access to common property resources.

Common Property and Village Social-Economic Structures

The fact that village boundaries in the Hinboun valley all touch up against each other (see Map 2 below) does not necessarily indicate that there were emerging constraints, or significant patterns of intra-village competition over land. Indeed, in considering wet rice agriculture in this locality, there is still evidence of quite open and flexible customary tenure regulations. In Ban Sivilay for instance, the 2001-2002 LFAP document detailed the ownership claims of all wet rice paddy production land in the village. Forty-nine households (out of seventy households listed in the document) are documented as maintaining plots of wet rice paddy within the village's territorial borders. First, this indicates that lowland wet rice cultivation was indeed a significant livelihood activity in Ban Sivilay at this time— an important point to recall in the next section, where the post-1998 flooding effects of the THPC project are examined. But second, in reading through this list of wet paddy holdings in the LFA document, there were many household names I did not recognize. While some individuals had moved or passed away, upon inquiring with the *nai ban,* it emerged that many of the farmers included in the LFA document actually lived in neighbouring villages. Through customary arrangements, they were

farming paddy land located inside the territorial boundaries of Sivilay. According to the *nai ban*, permission was required for people from neighbouring villages to clear lowland scrubland sites for wet rice in Sivilay village, although no land rents or production rents were charged for this. In general, this supports the idea of a rather low degree of internal, wet rice land use pressure within Sivilay, and of existent— but flexible— inter-village boundaries.[168]

Unlike for wet rice plots, with generally clear and perennial ownership rights accruing to those who first cleared the land, swidden or upland farming plots in Sivilay have been based upon a common property system, which prior to 2005-06 had very little in the way of permanent claims. That is, at the end of each farming year, a family's rice/vegetable swidden plot returned to forest, and was recycled into village-based common property tenure. There was no land renting or leasing amongst households, and no formal village meetings were organized at the start of the planting season to co-ordinate where different individuals and households would make their swiddens. As with the lowland wet rice tenure system, customary regulations for the upland forest-lands allowed that farmers from neighboring villages could request an area of forest within Sivilay territory for making a swidden plot, although unlike for wet rice, this appears to have rarely been

[168] I cannot confirm this pattern with other villages on the lower Hinboun, since although I have copies of the LFA agreements, I do not have a personal understanding of the resident families in those villages.

done.[169] Overall, there is little historical evidence for land access pressures constraining either upland or lowland agriculture in Sivilay, and there is no evidence for the existence of an internal, entrenched class of families who controlled the means of production (land or other productive assets), up to the time of fieldwork in 2005-2006. This lends support to the notion that it was household access to labour, technology, and skills, and not differential access to wet rice or hill rice land, or livestock *per se*, which was the more direct source of agrarian differentiation in this village.

In addition to land for wet rice and upland rice cultivation, villagers also have relied heavily upon access to local common natural resources for their livelihoods, food security and cash income. The environment of the lower Hinboun River provides an abundance of these common resources for local people (when these resources are not being appropriated by external actors). Important resources include the river and stream fisheries and drinking water; forests for hunting, collecting edible plants and growing rice; paddy and swidden fields for grazing; bamboo stands; mature forest timber for housing; and, sites for cattle grazing. Today, cash income is earned in particular from the sale of livestock (cows and buffalos), production of wood charcoal from local *mai tiew* trees, the sale of fish and wild bamboo shoots, and from the selling labour for sawing

[169] I propose that a reason could be due to the fact that farmers from neighbouring village could more easily travel by canoe via the Hinboun River to any wet rice fields located within Sivilay territory. However, for a farmer from a neighbouring village to cultivate a swidden plot in Sivilay forest territory, it would require a much longer, more arduous, up-and-down hike through the forest hills each day, making it a less attractive proposition. Issues around the politics of resource access are always inter-twined with the physical-geographical dimensions of access.

wood. Women make house sweeps out of *kaem* broom grass, or weave fish traps and rice steamers out of local bamboo and rattan for sale in Ban Songhong. A wide range of non-timber forest and river products including mushrooms and dozens of other forest plants, frogs, and molluscs are not typically sold for cash income, but form an indispensable part of everyday food security.

I draw attention to these points concerning property resource rights to support the case for Sivilay as a *relatively* egalitarian social-economic space. As scholars have suggested, there is a relationship between common property production systems and egalitarian village social structures. Scott (2009: 279) for instance writes:

> "One of the key material conditions for egalitarian structure—necessary but not sufficient— is open and equal access to subsistence resources. Common property land tenure and an open frontier are, in this respect, the material conditions that underwrite egalitarianism."

The availability of an internal common property resource system in Sivilay is consistent with the absence of a local agrarian landowning class in the village, and, at the time of fieldwork, the lack of entrenched patterns of agrarian differentiation between households, based on differential access to the means of production. Relatively better off and poor villagers have likely always existed in Sivilay, but these patterns were based on factors other than differential ownership or claims to land or other resources. Based on my village surveys and interviews, these factors revolved most closely around access to labour. Even secondary factors can also be traced to some extent back labour availability

such as: chronic illness or loss of a spouse (medical expenses and loss of labour); accumulating a herd of cows and buffalos (linked to labour); aptitude, skills, and work ethic; or a family member sending remittances (also linked to labour).

Although I forward the case for relatively egalitarian social structures in Sivilay, there are also a multitude of greater and lesser ways in which village wealth positions and social hierarchies are reiterated and politically reproduced. As will be explored in more detail in the next chapter, these factors relate to holding positions of leadership in village political structures (i.e. holding an official position on state or company-organized village committees), and differential participation in the mitigation and compensation programs offered by external resource companies.

At the time of in depth fieldwork in Sivilay, in 2005-2006, this common property and relatively egalitarian resource-based system was coming under significant strain. Two external factors were driving this process: the entrance of the Oji LPFL plantation company into village spaces; and the near total loss of productive wet rice capacity on the Hinboun valley floor due to THPC-linked flooding, and the associated general failure of the company's mitigation and compensation program.

In summary, this section has argued that there is little about Ban Sivilay which is historically fixed or which can be contained into typical conceptual categories. The

people and the geographies of all areas of Laos have been formed out of complex relational histories (Li, 2001; Hart 2006) and through multiple networks of connection with wider national and global processes (Kelly, 2000; Rigg, 2005). Hydropower and plantation development do not alter timeless peasant tradition, or finely balanced and sustainable ecological livelihoods in rural Laos, and nor do they create internal agrarian differentiation where none existed before. The communities and socio-natures transformed through megaproject development are built upon and are reflective of the layered outcomes of previous political, economic and environmental socio-spatial formations. The idea of a historical connectivity between the village and broader historical social forces, and between human activity and socially-produced landscapes (Robbins, 2001a) is important to maintain as we proceed to consider some of the more recent transformations, ushered in through the new era of resource mega-projects in Laos.

5.3 Producing 'Modern' Landscapes: Plantation Development and Hydropower in Ban Sivilay

> *THPC Question:"What do you worry most about for the future, in your own idea?"*
>
> *Villager's Response: "We will have no rice to eat."*
> *"We had no money for buying oil for the pump irrigation machine. We have good soil for rice paddy in this village, but if we plant, we cannot harvest. There is too much flooding. Now we seek employment with Oji to find money to buy rice. We cannot persist."*
>
> *"We have no land. Oji has taken it."*
> [Oral Translations to the Author, Sivilay Village Meeting Discussion with THPC

Environmental Management Division staff, June 25, 2006]

The Oji-LPFL plantation project and the THPC/THXP hydropower projects have ushered in an unprecedented set of changes to the ecosystem and the cultural landscape of Ban Sivilay. These transformations are combining with other ongoing changes in Hinboun district, related to a broader process of commercialization and regional integration. As a result, unpredictable and far-reaching transformations are being set in play. This section will outline the basic features of plantation and hydropower linked transformations and displacements occurring in the community of Ban Sivilay. I focus upon the cumulative risks and combined enclosures that are being introduced, changes which become embedded within the fabric of this landscape and place. I argue that the challenges in governing the resource landscape in contemporary Laos is being compounded by the ways in which the environmental outcomes of different extractive sector resource projects accumulate and overlap, interacting with the ecological management practices of local communities, and producing cascading and unpredictable results. We begin our analysis with the Theun-Hinboun Power Company (THPC) before moving to the Oji LPFL project, as it is through the resource enclosures arising out of hydropower development, that the subsequent plantation-based enclosures have taken on their full implication.

The Theun-Hinboun Hydropower Project and Recipient River Impacts on the Nam Hinboun

The lower Hinboun River has a documented history of rainy season flooding. In village interviews, informants from Ban Sivilay reported that 1993 was a particularly high water year, which was well before the THPC project came on-line in 1998. Claridge (1996), a researcher then working for IUCN Laos, drawing upon evidence from a pre-THPC project survey of five villages on the mid-lower Hinboun, recorded that wet season flooding was a regular event for the mid to lower Hinboun Valley. Discussing the situation of Ban Phahang, a village upstream from Sivilay, Claridge (p. 135) wrote:

> "On average, rice crops fail because of flood damage once in four years, though floods have destroyed the crops in both 1993 and 1994…Where floods are several years apart the loss of one rice crop does not necessarily cause hardship, providing families have sufficient land. It is reported by local people that the harvest from two hectares will feed a family if five for two years."

Further interviews by Claridge (1996), conducted in Ban Thana, Ban Vangmon, Ban Songkhon, and Ban Nong Boua, support this view of yearly— but only occasionally severely damaging— flooding on the lower Hinboun:

> "Ban Tha Na is similar to Ban Phahang in that people there say that their rice crop is flooded every year and fails through prolonged inundation about one year in four… When the rice crop fails people from Ban Tha Na sell buffalo, borrow rice from relatives, or go to other places to work." (Claridge, 1996:138)

For Ban Nong Boua, Claridge's (1996: 144) informants reported that:

> "Flooding occurs every year and on average water is over the riverbank for 7-8 days each year, though in a very bad year it might be as long as three months. Paddy is lost to prolonged flooding around one year in four. The impacts of flooding are not as severe here as in other villages surveyed, possibly because of

> the different elevations available for paddy fields. However, as a result of the floods in the previous two years, there is currently a rice shortage in Ban Nong Boua."

Claridge's information on the Hinboun flooding regime is consistent with my village interviews from Ban Sivilay. People in Sivilay were unanimous in the opinion that the onset of annually severe and extended wet season flooding was correlated with the time period coming after the completion of the THPC diversion project. According to villagers, the flooding experienced since 1998 has increased significantly in both the extent (of the high-water mark, and areas inundated), and duration (the length of time for which the paddy fields are flooded). Further, under the previous wet season hydrological regime, their total wet rice production would normally be partially salvageable, even after a period of flooding. Aerial photographs dated from 1992 confirm the previous extent of cultivated paddy land along the lower Hinboun River at Ban Sivilay, prior to the THPC project.

The reality is that villagers in Sivilay village have not cultivated any wet season paddy along the Hinboun successfully since 2001, a situation that emerged just three years after the THPC diversion project was completed. With the exception of two small areas of wet rice land located along small feeder streams, all their primary former rice production lands are now abandoned. There have been sporadic attempts by residents in Ban Sivilay after 2001 to establish a wet season rice crop along the Hinboun River, most recently in 2005, with three families making the effort. From village interviews, these crops were

also lost due to August-September 2005 flooding events. Ban Sivilay's riverside paddy field land (and indeed their entire housing common area) is now unpredictably flooded with 1-2 meters of water in periods through the wet season.

Accumulated evidence lends support to a link between THPC-linked erosion of channel sediments in the Nam Hai, and post-project flooding effects on the mid to lower Hinboun River. Interviews and email correspondence with international hydropower specialists in Vientiane indicate that the rate of erosion on the Nam Hai as a result of the THPC diversion project is estimated to have reached 1 million tons per year between 2002 and 2006. These experts suggest that between 8.5 to 14 million tons of sediment has been eroded from valuable agricultural land located along Nam Hai riverbank channel, and carried downstream into the Hinboun system, since the THPC project initiation in 1998 (R.M. Watson,[170] *pers. comm.,* Dec 9, 2006). In Watson's opinion, the Nam Hai channel has not stabilised in relation to the diverted flows; and indeed in his view the recipient river erosion rates may still be increasing. Watson's hypothesis points to a 'sediment wave' being forced through the Hinboun channel due to the upstream erosion patterns on the Nam Hai (RMR, 2006), a situation made worse by the creation of choke points in the river's course due to its winding course through limestone reefs, as well as from the effect of dislodged trees and the accumulation of large woody debris in the river.

[170] RM Watson was the head of a consulting firm based in the UK. His company had extensive professional involvement working on the environmental impact assessment process for hydropower projects, both in Laos and elsewhere. I cite his name here with permission.

The expected outcomes of a sediment plug being forced through the Nam Hai-Hinboun channel is consistent with the observable increases in wet season flooding and the pattern of successive abandonment of wet season paddy in Ban Sivilay in the post 2001 period. One could argue that the volumes of water actually being diverted into the Hai-Hinboun system (110 m^3/sec) would not result in a significant increase in the height or extent of flooding in the Hinboun valley when spread out over the entire Hinboun floodplain. However, a sediment wave hypothesis could account for this issue, as flooding levels over the Hinboun plain would be raised higher than if there was no sediment wave. The Hinboun sediment wave theory remains a hypothesis, although one which is consistent with local experiences. Other competing explanations for the new wet season flooding regime, and the clear pattern of abandonment of paddy fields on the mid to lower Hinboun (for example, attributed to deforestation-induced erosion as a result of swidden farming in the upper watershed), would need to be based upon some empirical evidence. This evidence would also need to be temporally correlated with the experiences of downstream farmers such as in Ban Sivilay, where they have not been able to harvest any wet season rice successfully along the Hinboun since 2001, just three years after the initiation of the THPC project.

THPC has instead often downplayed the linkages between their hydropower operations, and exacerbated downstream erosion-flooding effects. Representatives of THPC preferred

to locate their explanation for Hinboun flooding events upon other factors. These included: more rain, and natural flooding patterns of the Hinboun tributaries; increased wet season levels of the main Mekong channel, leading to back-flows into the Hinboun River; upstream logging and mining activity; and shifting cultivation in the upper Hinboun watershed catchments. THPC has also suggested that smallholder riverside tobacco farming on the Nam Hai and Nam Hinboun may be a contributing factor to the Nam Hai erosion patterns.[171] To date, THPC has not clarified, with empirical evidence, the effects of its diversion project on the downstream flooding regime in the mid to lower Hinboun river. For example, the extent of observed wet season flooding reaching far up into the middle stretches of Hinboun River, at the location of Ban Sivilay, suggests that explanations that focus on water back-flows from the main Mekong channel are insufficient (RM Watson, pers. comm., Dec 9, 2006). While the issues of flooding and riverbank erosion are surely complex and very likely related to multiple factors, it is also the case that neither THPC, nor the ADB, undertook any measurements of the hydrological-fluvial regime of the Nam Hai or Nam Hinboun prior to project initiation, which could have served as a baseline for analyzing the subsequent project effects of various factors. In the absence of any other evidence (indeed, the intentional avoidance of collecting such data by the project developers), the most parsimonious and direct explanation should be favoured. THPC is clearly the most direct and significant source of recent hydrological change on the Nam Hai-Hinboun system, through their major inter-

[171] Author Interviews with THPC, Vientiane, March 2006; and the THPC Environmental Management Division, Ban Nahin, April 30, 2006.

basin diversion hydroproject. It follows that THPC should assume fuller responsibility for the resulting economic losses for communities along the Nam Hai and Hinboun.

The impairment to local livelihoods extends beyond the direct erosion of agricultural land on the Nam Hai, and the seasonal loss of access to productive wet paddy land due to flooding on the mid to lower Hinboun. Elsewhere I have documented the loss of riverbank vegetable gardens in Sivilay (Barney 2007: 33; see also, e.g. Blake, 2004), as well as significant livestock deaths from disease linked to flooding events.[172] Other researchers have documented an extensive impairment to Hinboun fisheries arising due to the Theun-Hinboun project (see Warren, 1999; Schouten *et al*., 2004). In the village of Ban Sivilay, at the time of fieldwork, ten households were also moving their homes up to higher ground to escape the flooding, without any compensation or support by THPC. As of the last fieldtrip, in September 2008, Sivilay was still not connected to the national electricity grid, nearly ten years after the THPC hydro generation capacities came online.[173]

This research indicates that the current situation represents an externalizing of the true

[172] In July-August 2006 during a period of stay in Sivilay village, a livestock epidemic began, possibly involving *hemorrhagic septicemia.* This outbreak resulted in the loss of 15 adult buffalos and 3 adult cows from July 7 to August 22. One buffalo expired in a stream behind the village, the carcass of which served as a source of water pollution, and was likely a vector in the onward spread of the disease. In addition to the immediate health concerns, the livestock epidemic represented an overall economic loss to these families in Ban Sivilay in the range of US $6,500 (see Barney, 2007).

[173] THPC's position is that extending the electricity grid to the Hinboun villages was the responsibility of the province and the sub-contracted company (EMD interview, Ban Nahin, April 30, 2006).

costs of the Theun-Hinboun project onto downstream affected communities located on the recipient Nam Hai and Nam Hinboun, and communities living along the drawdown Nam Kadding. This argument is supported by the extensive THXP environmental impact assessment work, conducted by Resource Management and Research (RMR, 2006), as well as research conducted by International Rivers and FIVAS. RM Watson (personal communication, Dec. 9, 2006) estimates the overall economic losses for communities living on the mid to lower Hinboun as significant: with average household losses estimated at between US$150-$300 per year, and cumulative losses at between US $11-$13 million between 1999-2007. This figure is two to three times higher than the entire ten-year THPC Environmental Management Division (EMD) budget planned for 2001-2011 (US $4.7 million). Watson (in an on the record correspondence) stated:

> 'As a result of the sediment wave the flooding has been aggravated, and it is now judged by the affected people on the river bank and in the backwater areas as more risky to grow wet season rice, and more risky to raise livestock. About 5,000 families are affected in the Hinboun valley… Losses will continue to get worse for some time even if the diversion discharge is canalised to the Hinboun and the THHP discharge is closed in the flooding periods, as we have an accumulating progression going on. The rice damage is exacerbated by the turbidity in the water resulting from the erosion in the Nam Hai, which provides a significant colloidal component in the suspended sediment. Slower flood drainage, higher water levels and higher turbidity all combine to produce the risk aggravation reported by farmers and observed in their abandonment of wet season rice fields. Livestock production suffers from more disease risks during prolonged flooding, and damage to pastures from heavier sediment on grasses and other fodder.'[174]

The available local and circumstantial evidence strongly indicates that Sivilay villagers'

[174] RM Watson, email communication, December 9, 2006.

recent abandonment of their Hinboun rice paddy is closely related to a new regime of wet season flooding, which can in turn be linked to the outcomes of the THPC hydropower diversion project. For local farmers, the effects of this complete loss of access to productive wet rice paddy have been very significant. Previous to 1998, many households relied to a greater or lesser extent upon wet rice, and some traded their surpluses at the state trading house at the local commercial centre of Ban Songhong. In exchange for fish and rice, farmers obtained commodities such as sheet metal roofing, clothing, basic household goods and fuel. At the time of my primary fieldwork in 2006, no household in the village produced an annual surplus of rice. Only 17 out of 48 families even maintained a *lao kao*, or a rice storage hut, which rural households would typically construct outside their homes to store rice through the year. Many of these existing *lao kao* are now in an obvious state of disrepair. It is clear that well over half of the families in the community no longer produce sufficient quantities of rice to merit the maintenance of these traditional rice storage huts. One of the most respected elders in the village, a former Buddhist monk, summed up the situation quite directly: "We are poorer because of the flooding." (village interview, December, 2005).

Hydropower Compensation and Mitigation under THPC:

The THPC project has not proceeded without social and environmental assessments, although initially, during the project construction phase, the ADB and THPC denied there would be any significant downstream impacts (e.g. ADB, 1997). Under the terms of the

ADB-mediated contract agreement between THPC and the Government of Laos, THPC's total financial responsibility for all project related mitigation and compensation programs was limited to US $1 million. According to International Rivers, nearly all of this amount was spent on project related infrastructure, consultants, government training, and similar activities (IRN, 1999). In response to increasing pressure placed upon THPC and the ADB due to critical field reports released by Shoemaker (1998), and the International Rivers Network, as well as by Warren (1999) on project–related fisheries impacts, in late 2000 THPC commissioned their own, independent environmental review. The result of this process was a formal, ten-year, US$4.7 million Mitigation and Compensation Plan (MCP), to be implemented through a new Environmental Management Division (EMD) under THPC.[175]

The EMD work program, tabled in September 2000, was designed to address the major identified downstream social and environmental impacts in both the donor (Nam Theun-Nam Kadding) and recipient (Nam Hai- Nam Hinboun) river systems. The eventual EMD log-frame, established in 2001, was organized around a series of identified problem areas including: (i) the loss of dry season riverbank gardens; (ii) the loss of access to traditional fishing and fish breeding areas; (iii) erosion along sections of the Hinboun River, which caused a loss of land and reduced access to clean water supplies; and (iv) losses of income by villagers due to delays by the company in taking action to solve the initial

[175] See: http://www.adb.org/Projects/TheunHinboun/logical_Framework/logical_framework_2001_2006.pdf

problems caused by the project (Blake, Carson and Tubtim, 2005).

In all, 3,000 families in 57 villages were identified as project-affected persons within the EMD program. The MCP included a stipulation for independent external assessments to be conducted every two years. Only one external review has been completed since the EMD was established, conducted in March 2005, and in cooperation with International Rivers (Blake, Carson and Tubtim, 2005). Notably, in 2001 the THPC Environmental Management Division program did not identify aggravated wet season flooding as a critical issue, likely because flooding problems on the recipient Hinboun River had not yet become serious. The MCP did however require rates of erosion, flooding and sediment transport to be monitored from the Nam Hai.

In Barney (2007), I examined in some detail the failures, and limited successes, of the THPC Environmental Management program in providing mitigation and compensation for project-induced losses in the village of Ban Sivilay. There is insufficient space here to recount all of the outcomes of the mitigation and compensation initiatives in Ban Sivilay, in all of their local complexity, and some of this will be reviewed in the next chapter. Instead, I draw attention to the broad ineffectiveness of the THPC program to providing adequate compensation and mitigation measures to downstream communities for project-related environmental damages. This includes: (i) the collapse, after 3 years, of the

THPC/GoL dry season irrigated rice replacement scheme in Ban Sivilay[176], (ii) failure to provide compensation for the loss of productive paddy due to increased wet season flooding; (iii) the negligible benefits of the 2006 THPC dry season irrigated commercial corn program; (iv) the minimal benefits from the 2006 THPC dry season irrigated vegetable program (aimed at replacing traditional riverside vegetable gardening and providing new commercial production opportunities); and (v) failure to adequately redress the decline of the Hinboun fisheries.

As I discuss in the next chapter, other MCP initiatives in Ban Sivilay (for example, the village revolving fund, the toilet construction program, villager health and vaccination programs) have all been at least somewhat useful for some villagers. While worthwhile, these interventions have not replaced villagers' lost or damaged productive resource assets. In addition, an array of factors have worked against the inclusion of the most vulnerable households in these mitigation programs, including a typically short supply of adult household labour in these poorer families; a calculated conservatism by the poor regarding enrolment into what are often risky new production systems; and reinforcing patterns of economic marginalisation and social exclusion.[177]

[176] Regional experience suggests that there are often serious natural, economic and technical hurdles to effectively implementing large-scale, capital-intensive irrigation systems (e.g. Blake, 2001 in Thailand; Shoemaker, Baird and Baird, 2001:48-52, for the Xe Bang Fai River in Laos), and many observers are unsurprised that the GoL-THPC scheme in the Hinboun valley appears to repeat this pattern.

[177] Mosse (2007: 2-3) comments on this more subtle social reproduction of marginality and hierarchy within communities, noting that: " 'poor people' are not only those with limited exchange entitlements, but those who fail to invest in the social institutions through which labour, cattle, credit or jobs are mobilised, who fail to gift or consume in culturally proper ways."

These research results from Ban Sivilay were independently corroborated (after my fieldwork ended), by the contracted firm conducting the ESIA for the Theun-Hinboun Expansion Project (THXP):

> "The THPC Mitigation and Compensation Programme does not make much of significant contribution in reversing this impoverishment, as it is too small a programme and poorly distributed, favouring the better off and less affected households, and not yet reaching all affected villages. The effect of this design flaw (or defect or malpractice) is in effect to transfer a large amount of the risks and costs of the project to the affected people, relying on a regulation system and mitigation process which is virtually non-functional to remedy the losses. It is unsound to leave avoidable damage of this magnitude to be sorted out by mitigation and compensation anywhere in the world, and in countries lacking services and capacity for providing relief, it could be described as reckless."[178]

This transfer of risk onto downstream populations, in the context of a structurally underfunded and under-capacity national regulatory system, creates the opportunity for resource rent capture and extraction from the countryside, and extra-normal profits for project developers. In the case of Ban Sivilay (with 48 households), RMR's estimated net THPC-induced losses of $150-$300 per family per year, implies a direct economic loss of between US $86,000- $172,000 over the past 12 years in this village, as a result of THPC.

With the near total loss of rice paddy from flooding, and the failure of the dry season irrigation schemes and the minimal success of the other THPC EMD livelihood

[178] R.M. Watson, *pers. comm*., Dec 9, 2006

replacement schemes, the remaining agricultural option for farmers Sivilay has been to increase their dependence upon upland rice cultivation, through swidden (shifting cultivation) farming systems (*hai*). A close understanding of customary practice, and legal tenure arrangements governing the rotational swidden system in this village provides us with an entry point for examining the fuller implications of the Oji Lao Plantation Forestry Ltd. project for the community of Ban Sivilay.

Customary Forest-Land Livelihood Practices in Ban Sivilay

Swidden agricultural practices are based on household membership in Ban Sivilay. Relatives or friends may often situate their swidden fields next to one another. This can be for simple comradeship while working in the fields, but it also saves on the perimeter area required for fence construction around the boundaries of one's plot. Families will usually coordinate the burning times if their fields are next to one another—and share the labour in constructing fencing. After this, however, each household usually is responsible for their own fields. With the exception of young, newly married men working on behalf of their parents in law, swidden agriculture is not a 'communal' undertaking in Hinboun district, although one may help a relative if one's tasks are completed early.

A swidden field is subject to the vagaries of weather. If the rains come early, a farmer may not achieve a sufficient quality of burn to make a viable swidden field. Alternately, if a farmer decides to burn the fallen trees too early, and the rains are delayed, the water in

the vegetation may hinder combustion and provide an insufficient source of fertilizing ash. In Ban Sivilay in the burning season of 2006, a number of families were forced to abandon their entire effort at clearing a swidden plot for the year, after earlier than expected rains made a quality burn impossible. In such circumstances, all of the labour of cutting the forest is lost, at least until the following year, and a family is dependent on accessing the local wage labour market, selling livestock, fish or forest products, or even borrowing rice from relatives (or non-relatives, at interest), to survive through the year.

The procedures for rice planting are as gender-based as the initial forest cutting. Men use dibble sticks, punching depressions into the soil, which are filled with rice seeds by women. At the time of planting, larger kin groups may join together to complete the work in each field. Weeding is only required once or twice in high quality secondary forest swiddens of Ban Sivilay, and typically women and older children would be responsible for this. But often this work is shared between both men and women. Harvesting takes places in November-December, again with each family largely controlling their own labour inputs. Sivilay villagers stated that they never planted rice in the same field over multiple years; rather they identified and cleared new areas of forest each year in a rotational system. From conversations and observations of areas cleared for swiddens in Ban Sivilay (outside of the new areas of large forests, opened up through the Oji-LPFL program,) the current rotation period for swidden fields appeared to be in the range of between 6-10 years.

Villagers are also using upland swidden plots for much more than just the planting of glutinous rice. Fruits and vegetables are also planted in Ban Sivilay rice swiddens, including: *pak mak buab* (climber on a pole); *mak man*; mak thua (bean); *mak kaanoy*; *mak peuk*; *mak hoong* (papaya); *pak salii* (corn); *mak taeng* (watermelon); *mak guay* (banana), *pak oi* (sugar cane); other melons; *mak ped* (hot chillies); *pak e-tou*; *pak sa nyet.*

It is after the end of a swidden cycle, as the forest is quickly re-growing through the following wet season, when the full use of swidden in relation to non-timber forest products become apparent. The village lands around Ban Sivilay include a full landscape mosaic of forest types, between recovering swiddens, in their first, second or third year of fallow (*pa lao on*), older swiddens, in their 5th-10th years (*pa lao kae*), mature secondary forests (*pa dong*) and 'older' forests which provide the fullest range of forest products which are so important to rural livelihoods in Laos, for example a range of mushrooms and plants thrive on the decaying logs of old swiddens, in *pa lao on* forests.

The collection of non-timber forest products (NTFPs) is also highly gendered, with women often holding primary responsibility for accessing and managing these resources. Women in Ban Sivilay know of well over 150 species of herbs, shrubs, fungi, and other non-timber products (I did not request them to list them all!), and for each they know the

best micro-site to find them, their seasonality, and their preparation requirements. This range of forest produce is simply indispensable for everyday village food security. Men and boys also collect forest produce when walking to and from their swiddens, though they would more rarely make a concerted trip to collect NTFPs in the manner that village women would. Men also go on occasional hunting trips with their hunting dogs in Ban Sivilay, with a wild pig the most prized quarry. Snakes, monkeys and other small mammals or reptiles would also be caught for food, and occasionally, cash sale. Bamboo shoots represent a particularly important source of cash income at the beginning of the wet season, at a time when rice stocks have dwindled to negligible for many villagers.[179]

Eventually, the fallow swidden fields regenerate to the point where it becomes '*pa dong*', or mature forests. In Laos, the irony of the Land and Forest Allocation program is that the program 'fixes' landscapes in a singular moment, and then enframes village-managed forests into modern classifications, as 'conservation forests' or 'production forest' and makes it illegal to conduct certain activities in these zones. In reality, such areas of intact conservation and production forests are often simply over-mature swidden fallows. Villagers themselves have other names for these forests. For people in Ban Sivilay, the forested hilltops (*phou*) zoned through the LFA as *pa sa nguan* (conservation forest) are simply called *Phou Ai Baa*, and *Phou Thamong*. Ai (*elder brother*) Baa was the name of the man who first made swiddens on that hill some years previously, and Mr.

[179] Village records indicate a total of 12.86 tonnes of bamboo shoot sales in 2006, bringing into the village economy an earned income of over 8 million kip (US$800).

Thamong was the name of the villager who similarly cleared his swiddens in the area of the now tall, 'economic' forests. Other forests types are similarly known in colloquial terms, which are not used in official state forestry programs. The village protection forest (*pa pong kan*), is known in Ban Sivilay as *Phou Din Bet* (Duckfoot Mountain), where there are traditional regulations in place against clearing these forests for swidden (the timbers in this forest are reserved for house construction). Indeed, much of the reason why the Ministry of Agriculture and Forestry (MAF) Land and Forest Allocation maps are poorly comprehended by villagers in Ban Sivilay relates to the fact that the state officials, drawing upon scientific forest management, do not use anything like the same terms for landscape and forests as villagers do. At the same time, it is important not to reify or essentialize forest and landscape management practices and traditions in Ban Sivilay, or project them back into a mythical natural-sustainable history. It is useful to recall that the upland forests behind the village have taken on their contemporary full significance for local food security due to the agricultural displacement effects from the THPC project. The landscapes are also under an increasing amount of pressure from villagers themselves, and outsiders, as new opportunities for selling forest and river produce emerge, particularly after the 2004 construction of the BGA/Oji-LPFL access road and the start of regular visits by traders.

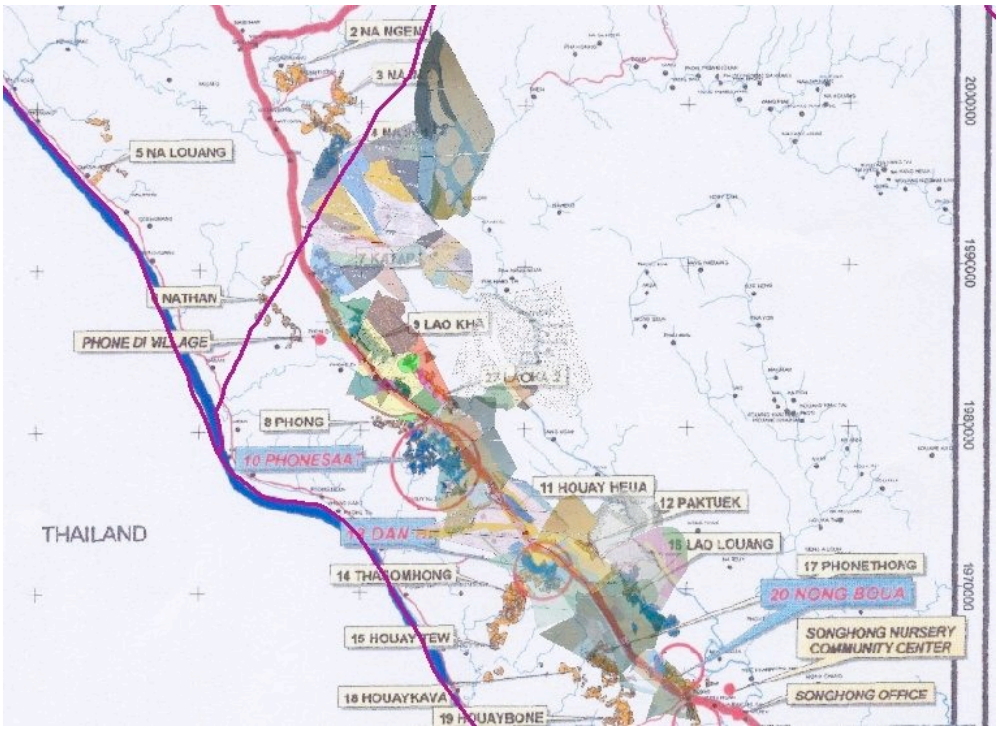
Participatory Land Use Planning and Village Forest-Land Conversion under BGA and Oji-LPFL

As documented in Barney (2007), LPFL's plantation program in Pakkading and Hinboun Districts have often involved clearing high quality secondary forests for eucalyptus and acacia plantations, at times leaving villagers displaced and living in a radically altered landscape, on the edge of the cleared block areas. Here, I explain how this process of re-zoning land access through plantation development has proceeded in Ban Sivilay. As the company has expanded their tree planting program, the BGA-Oji project, and the plantation commodity network, has become a concrete 'fact on the ground.'

In Ban Sivilay, the first task of the Provincial and District Agriculture and Forestry Office field staff in implementing the Land and Forest Allocation policy was to demarcate the external village boundaries. This border mapping was done in consultation with all neighbouring village committees sharing the same boundary. Based on my interviews with Sivilay villagers, the external village boundaries were already generally known and agreed upon with neighbouring communities, even before the mapping exercises of the LFA program were implemented. When photographs of the LFA maps from a number of villages are digitized, entered into a GPS system, and aligned with each other, (see Map 2 below), what is interesting to note, in addition to the surprising accuracy of the hand-painted maps, is the lack of 'empty space' or vacant land between villages.[180] This indicates that in the Hinboun Valley, the inter-village land frontier was certainly closed

[180] The exceptions are the tall mountains of the Phou Hinboun range.

by 2001-2002; and indeed, according to villagers, this had long been the case.[181]



Map 2: Hinboun Valley community boundaries and the Village Land and Forest Allocation Maps. (Source: With permission from Glenn Hunt, Japan Volunteer Centre).

The implementation of official upland zoning and land allocation through LFAP was generally aimed at invoking a shift towards more permanent, individual and household-based land rights. However, in conducting the LFAP in Hinboun district, the Khammouane Provincial Forestry Office (PAFO) and the Provincial Agriculture and Forestry Extension Service (PAFES) (for reasons that I was not able to identify clearly),

[181] This is in some dispute with ADB rhetoric concerning an abundance of 'available land' in Laos.

did not demarcate any upland plots or issue any household-based Temporary Land Use Certificates (T-LUCs). That is, during the 2001-2002 LUPLA process in Ban Sivilay, there was a 'LUP' conducted, but no 'LA'. In interviews however, most Sivilay villagers did not understand the official forest-land zoning categories appearing in the village LFA map. Indeed, after the 2001-2002 LFA was finalized, swidden agriculture appears to have been carried out much as before, as a village-based common property system. From my observations, the provincial forestry officer responsible for LFA implementation would point out (from the access road) to villagers which areas of mature forest villagers were not allowed to clear for swidden, and villagers understood this arrangement.

What the LFA *did* produce was a map that officially allocated large areas of village territory to BGA Forestry Ltd. (later transferred to Oji LPFL) for industrial tree plantations. In Hinboun district, the village LFAP programmes were implemented with the direct financial and technical support of BGA Forestry (and subsequently, through Oji-LPFL support). This situation introduced a conflict of interest into the LFA process, whereby a commercial plantation company with a specific interest in accessing forest-land, is contributing towards the salaries of the Provincial and District Forestry Department staff, who are charged with implementing the state land zoning process. Given the relative economic imbalances involved between local forestry staff (wages for GoL forestry staff are typically in the range of US$40-$60 per month), and a company such as Oji Paper (with annual revenues three times the size of the GDP of the country of

Laos), it is not difficult to imagine whose interests are likely to be protected first when the company seeks access to land. This is particularly the case in an authoritarian state that does not tolerate political dissent (Stuart-Fox, 2004).

The below photograph shows the LFA map, as posted in the village centre at Ban Sivilay. The lighy coloured sandy-pink areas are the village lands in Ban Sivilay that have been zoned to BGA/Oji-LPFL for commercial plantation establishment. In Lao, the legend which indicates these locations reads *din suan book mai bolisat bii jii ae* ("land for tree planting, BGA Company"). 610 hectares out of a total village land area of 1,833 hectares were allocated to Oji-LPFL for tree planting. With the exception of just over thirteen hectares of stream side paddy, which was carefully mapped and labeled with GPS instruments supplied by the company, any further village claims to land in these spots were not recognized. It is notable that a very singular attention is paid to respecting paddy land—it was mapped down to the square meter—while all other aspects of village resource use were excluded. The village forest and swidden land zoned for plantations is considered unstocked, "degraded forest", and, despite the wealth of research which has shown the importance of such forest-lands in sustaining rural livelihoods, without any record of land tax payments villagers and households had no further legal claim.

Plate 4: Ban Sivilay Land and Forest Allocation Map.

Box 1: Village Land Use Categories in Ban Sivilay under the Land and Forest Allocation Program:

Din ban lae din booksang [village housing land]	45.39	
Pa saksit, pa xa [spirit and cemetery forest]		2.00
Pa pongkan [protection forest]	108.19	
Din kasikam [agricultural land]	85.34	
Pou hinboun [Hinboun mountains]		--
Din heykasikam [land for agricultural expansion]		469.96
Pa sa nguan [conservation forest]		171.00
Pa phunphu [regeneration forest]		292.50
Pa somsai [use forest]	174.25	
Din pheua tham kaan palit [land for agricultural production]	484.35	
Khet khoom khorng khong ban [Total village area]	**1,832.98 hectares**	

Total land allocated for "Bolisat BGA" [BGA Company] **610 hectares**
(Derived as 1/3rd of Village Land)
- When the 13.37 hectares of paddy land, mapped with the GPS, is subtracted, the net area allocated for Oji-LPFL from Ban Sivilay is 596.63 hectares.
- For Ban Sivilay, approximately 138 hectares of village land had been cleared and planted with eucalyptus by Oji-LPFL to the end of 2008.

The LFAP-derived forest land categories for Sivilay village are listed below. Particularly notable is how the zoning for plantations was generated. Interviews with Oji company officials in Ban Songhong, Hinboun district, have confirmed that the figure for *din suan book mai bolisat bii jii ae* ("land for tree planting, BGA Company")—610 hectares—was simply taken as one third of the total Sivilay village territory. This more or less random proportion was arrived at without any analysis of how the land was actually being used, or an understanding of the importance of this land in sustaining current village livelihoods. This same process has been repeated for many other Oji villagers in Hinboun and Pakkading Districts.

Overall, BGA-Oji organized their land zoning program in Hinboun district though technical criteria, as opposed to social criteria. The company process for zoning land was described at a 2007 meeting in Vientiane as follows. An initial Feasibility Study, drawing upon satellite imagery, was used to demarcate the boundaries of the 154,000 hectare concession area. Wet- rice paddy locations were subtracted from this total, using aerial photographs. Soil classification maps from the Ministry of Agriculture and Forestry were then used to determine soil type locations, which were suitable for tree planting. Out of a total area of shifting cultivation with suitable soil classes in the two districts, some 96,500 hectares, 40-50 per cent was simply estimated as 'available for commercial tree plantations.' From this point, LFAP exercises were used to internally zone land from community spaces.

The Lao Forestry Law (2007) defines the areas of land that can be allocated for tree plantations as: *"barren land, grass land, degraded land without trees, and land that could not regenerate forest without human intervention."* The evidence from villages in Hinboun and Pakkading Districts shows how distant the political idea of 'degraded forest' is from the reality of even 'best practice' plantation development in Laos. A larger point however is that in these districts of Laos, there are very few areas which are barren, or dominated by grassland, or degraded to the point that forests and swidden fields do not quickly regenerate large trees. Indeed, the soil and climatic characteristics supporting dense forest cover in Hinboun and Pakkading Districts are largely why BGA-Oji have come to invest in these areas of Laos. The high quality soils and the high annual rainfall make it much more possible to reach the minimum required plantation growth rates of 18-20 cubic meters of wood volume per hectare per year, which is the single most critical precondition for the profitability of Oji's project.

The Oji-LPFL programme started in Ban Sivilay in 2005. Approximately 80 hectares were cleared using bulldozers, and prepared for planting with high-yielding eucalyptus clones. The company's plantation zone in Sivilay village connects to established plantation sites in neighbouring Ban L-, which were established in the late 1990s by the BGA Company. My arrival in December 2005 at Ban Sivilay coincided with the second year of land preparations for plantations establishment in the village. It is important to

note that all of the flatter areas inside the Ban Sivilay village boundaries, shown in the LFA map to the west of the Hinboun river, are seasonally flooded forests (now much more than previously, due to THPC's effects), and characterized by bamboo scrub forest and abandoned rice paddy. The only areas that are appropriate for upland agriculture in Ban Sivilay are from the Hinboun River eastward, towards the main highway. With the exception of areas demarcated as village protection and conservation forest, almost all of this area has been zoned for Oji's plantation program. Thus, while the figure of 610 ha. of zoned plantation land out of a total village area of 1,832 hectares may appear to allow for the potential to continue swidden, in reality, if the full proposed area is developed by Oji, this will enclose nearly all of the remaining upland swidden forest-lands (i.e. productive agricultural land) in the village.

In return for this scenario, Ban Sivilay residents receive a sum of $50 per hectare. As the Oji- LPFL Company has a 50-year lease on these locations, this would amount to a compensation of US$1 per hectare per year for village land. From the perspective of communities in Hinboun and Pakkading districts, this land is being leased to a multi-billion dollar transnational pulp and paper company, nearly free of charge.[182] The compensation amount is to be awarded not in cash, but in the form of development interventions organized by the Oji- LPFL Company. In Ban Sivilay, this money appears to have been used in the extension of a company access road 1.3 km to reach the village

[182] As mentioned, the GoL does hold a 15 per cent stake on LPFL. One might assume this stake was secured in exchange for the waiving of land concession fees.

proper, although nowhere are these sums made clear in any documents given to the villagers.

The above highlights how the LFA process in Laos has been the mechanism used by the plantation company to zone community forest-lands for concession development. Next, I examine the ways in which plantations are being developed on the ground in rural Laos are distinctive to each particular community and landscape.

The Local Politics of Agrarian Enclosure: Land Clearing and Plantation Establishment in Ban Sivilay under the Oji-LPFL Project

In discussing the process of land alienation and plantation establishment in Ban Sivilay, it is important to situate an analysis within the lived experience of villagers, and local political processes. At the time of research, villagers in Ban Sivilay were not often actively resisting either the plantation company or the hydropower company in their operations, although many villagers have tended to avoid the THPC MCP initiatives, and some villagers have taken steps to raise concerns about Oji's activities in the village to local authorities. Some villagers responded in interviews that, in their view, some things had improved in the village with the arrival of the resource companies, for example around health matters. Others retain some optimism for future village advancement.

In understanding some of the local complexities, one story may provide an indication. In February 2006 I was present as a village member from Ban Sivilay was assisting the Oji-LPFL subcontracted tractor driver and his foreman to repair the bulldozer tractor—which was being used to clear village forests. This situation seemed to me as an indication of the lack of local villager direct resistance to the plantation company operations. When I returned to the village a year later, in 2007 however, it came to light that the local villager, along with a couple of his friends, had been caught stealing petrol from the LPFL bulldozers. One of the men in fact had to flee the village for a period of some months to avoid the embarrassment that would come with facing the charges. This example is perhaps indicative of the some of the subtleties of villager-company interactions. Typically, however, what local people are trying to do is to support their families and to produce enough rice and food to eat, and they are seeking the best possible terms from the company projects in their village to allow them to do so. In reality, given the authoritarian political circumstances prevalent in Laos, they likely have few other options. Villagers do raise issues however, and are by no means passive. In January 2006, walking with one Sivilay villager through areas of former forest recently cleared by subcontracted bulldozers working for Oji LPFL, he stated directly:

> 'If the villagers cut the big forest like this, we would go to jail… Laos loses benefits from these actions.'

This man's responses were framed in reference not just to the inequalities between

application of the forestry law between villagers and the company, but also to the overall 'national' implications of large-scale, extractive rural development strategies.

This raises the role of provincial and district officials in the land zoning process, which has granted extensive areas to external concessionaires. Provincial forestry authorities in Khammouane province seem to have adopted a pragmatic approach to farmers undertaking swidden farming systems. While the official policy of the Government of Laos is still to stabilize or eliminate swidden agriculture, local forestry officials in Khammouane realize that this major agricultural production system is not going to be eliminated through official regulations alone. One official from the Khammouane forestry office relayed an indication of a more mediated and moderated approach taken to the swidden issue by both state officials, where some linguistic flexibility between the terms *hai* (swidden rice field) and *suan* (gardens, which may include fruit trees) 'solves' the problem of implementing the official swidden stabilization/eradication policy handed down by the central government:

> The villagers do not say "*hai*" anymore. Now it is always "*bai het suan*" (or, "gone to work in my gardens") [smiling]. They [villagers] plant banana, and papaya in the rice fields, and so it [*hai*] turns to "*suan*" [laughing].
>
> (Author Interview, Provincial Forestry Officer, Thakhek, July 10, 2006)

The same provincial forestry official interviewed above was also closely involved in the Land and Forest Allocation exercises, in association with BGA-Oji, in Hinboun District. Here, the mechanisms of controlling farmers' agricultural and land use practices and

promoting foreign investment in plantations are clear and direct, with much less room for 'flexible implementation' of development policy by local officials. Swidden agriculture is to be reduced and eliminated in Laos through allocating degraded swidden lands for commercial tree planting projects.[183]

In 2006, there were two primary means through which land was being cleared. The first and primary mechanism involved direct use of heavy bulldozer machinery. A second means by which Oji-LPFL organised the clearing of upland forest-land in Ban Sivilay in 2006 was through the provision of cash payments directly to a group of village farmers to cut down their own forests. The farmers would then use this land for making swiddens for one year, and also intercrop eucalyptus seedlings in between the sown upland rice, in a taungya-like arrangement.

For their labour in clearing secondary forest by hand axe, which could take some months, Oji compensated the 13 participating Ban Sivilay residents 800,000 Lao kip (approximately US$80). The 13 households were also able to earn 600,000 kip per hectare for marking and digging holes (US$60). The actual planting of trees was compensated at a rate of 20,000 kip per day. In 2006 the labour for marking and digging holes and planting trees in the locations cleared by company tractors was performed by

[183] An interesting indication of a critical response by district officials in Khammouane and Bolikhamxai provinces to the Oji-LPFL plantation project in their jurisdictions is available from a recent Vientiane Times article, which reads: "District officials in Bolikhamxay and Khammuan provinces have *called on* Oji Lao Plantation Forest Co Ltd to provide clear and detailed environmental and social impact assessment report and management plan for its ongoing activities" (emphasis added) (Vientiane Times, 2010a).

outside wage earners brought in from Vientiane province by the company, as the time when this work became available conflicted with the swidden preparation schedules of most of the residents of Ban Sivilay.

The question could be raised as to why these thirteen families participated in clearing their own village forests on behalf of the company. Even more important than the direct cash income, which they urgently needed, village respondents suggested that they were doing so in order to access these high quality upland forests for making swiddens. After clearing and burning and constructing a fence, rice could then be intercropped between the company eucalyptus seedlings. This could only be done for the first year however, as by year two the canopy in a well managed eucalypt plantation has begun to close. This group of thirteen villagers was clear in stating that they would have faced repercussions from the district forestry authorities for clearing these locations of high quality secondary forests with their hand axes. The fact that the company was directing this work meant that villagers could use this opportunity to clear the forest, which, after burning would provide a good rice crop in return.[184] The costs of doing so however were also clear. In effect, these villagers were trading short-term food security and cash income, for the loss of access to these village forests for the next 50 years. The village headman put it bluntly, fully cognizant of the trade-offs that were involved: "*We are saying goodbye to our*

[184] In other neighbouring villages, any commercially valuable trees cleared for the Oji LPFL project were taken by the provincial forestry office to be auctioned. In Ban Sivilay, some valuable trees were cut into planks by villagers, although I did not learn where they were used or sold.

forests." Other villagers are also aware that if the company plantation project continues, they will not have any future locations for making swiddens and planting upland rice.

In theory, it may be possible to intercrop rice in a staggered block plantation program, designed over a seven or eight year rotating system (as the Stora-Enso eucalyptus project in eastern Savannakhet and Salavane is planning). However the productivity of upland rice is also dependent upon the fertilizing pulse of ash and charcoal from a good burn. In subsequent rotations, there would be no such significant fertilizing pulse of ash, and there is little information on the long term sustainability of such soils in supporting upland rice after successive rotations of intensive eucalypt plantations. It seems likely that expensive fertilizer inputs would be required in successive rotations to support intercropped rice—again externalizing another dimension of ecological risk from a resource company onto community livelihoods in Ban Sivilay. There is also no indication that LPFL has planned to develop a rotational plantation program, or to develop a taungya-based intercropping system around such local food security priorities. In a classic of the political ecology literature, Piers Blaikie (1985) investigated such questions of peasant land and resource use in the context of a broader political economy of development and soil degradation. In a section that echoes the experiences of Ban Sivilay, Blaikie writes (p. 19): "They (the poor) may be forced to destroy their own environment in attempts to delay their own destruction."

One of the major problems that villagers in Ban Sivilay residents had with the LPFL Company in the planting season of 2006, which led to a complaint submitted to the district authorities, revolved around non-payments for the wooden fences built around plantation sites. Sivilay residents cleared these spots, and intercropped rice between the eucalyptus seedlings, but of course Oji's saplings had also been planted there. Fences are necessary both for upland rice, and for young eucalyptus seedlings, to keep cattle and buffalo outside of the fields. Oji's apparent position was that Sivilay residents would need to build the fence anyway, since villagers were intercropping rice in these locations. Sivilay residents saw the company taking advantage of their labour, as the company eucalyptus seedlings were also being protected by the fences built by villagers, which took approximately 1-2 weeks of hard labour to construct. It bears recalling that Oji Paper Company generated revenues of US$10.8 billion dollars in 2006, while the annual income for Sivilay residents is likely very close to the average GDP per person for Laos, in the range of US$450 per year.[185]

A second major issue in Ban Sivilay with the LPFL Company in the middle months of 2006 involved issues with delayed payments for village labour. In the months of June, July and August, most villagers had run out of their stores of rice, and were now fully dependent upon cash income to purchase staple carbohydrates. Delays of weeks, or even

[185] This was an issue in which my intervention was of material benefit to local residents. I raised the problem with Oji's staff in Vientiane, and soon afterwards, a payment to villagers for the fence construction was made.

months in the company payments for labour inputs meant that the poorest members of Ban Sivilay were forced to borrow rice, at high interest, either from other village residents or from the rice millers in Ban Songhong. For one villager, one of the poorest members, one 30 kg sack of rice usually cost him 190,000 kip (US$19). However, because the wages for weeding Oji's plantations were 2-3 weeks late, he had to borrow rice from other villagers to provide for his family. He would have to repay an amount of 230,000 kip ($23) for the loan. This $4 in interest represents an additional 2 days of labour on the plantation (at 20,000 kip per day). For this man, even though wage labour opportunities in weeding or fertilizing the company plantations were becoming available, he feared he would not be able to participate due to the acute situation with his family's food requirements. While such villager concerns may appear as minor, it is these every-day, micro-processes of displacement, enclosure, partially successful mitigation projects and missed or delayed compensations, compounded over the last ten years, which have led to the current situation of Ban Sivilay. Many village residents are slowly slipping further and further behind in terms of their resource and livelihood security and in their social welfare.

Rice Production Strategies and Restricted Options

For other families in Ban Sivilay, including many householders without the availability of men who were willing to undertake the fatiguing 2-3 months of labour to prepare quality secondary forests for swiddens, another option was to intercrop rice between eucalyptus

seedlings in the areas cleared by the company tractors. This option was the method of choice for rice planting in 2006 for labour-constrained Sivilay households (for example, whose young men were away in Thailand working for cash income). However, the corresponding rice yields were also likely to be significantly lower in tractor-cleared areas than in the areas cleared by hand axe. In these tractor-cleared locations, any valuable trees were removed by the company, and the remaining woody vegetation was usually piled by tractor and burned, instead of being felled and burned evenly over the entire field. Also, company bulldozers resulted in a heavy compaction of the upland soils, making it more difficult for rice to thrive. In other available tractor-cleared locations, the quality of the soils was simply quite poor, with many small stones. These factors would tend to increase weed growth and reduce rice yields in swiddens planted in tractor-cleared locations.

Box 2 below provides a summary of household rice cultivation strategies in Ban Sivilay through 2006. Of particular note are the average and the range of household rice production, and the overall trend that villagers who planted rice in the ‘tractor-cleared’ areas came away with lower yields than villagers who planted rice on ‘axe-cleared’ upland plots.

Box 2: Four Strategies of Rice Production, Ban Sivilay 2006

1. Axe-cleared intercropped rice with Oji eucalyptus swiddens (mapped with Oji GPS) (n=13)
Mean average productivity = 816 kg/ha.
Median average productivity = 682 kg/ha.
Average household rice supply: 5.75 months.

2. Self-managed swiddens (n=22)
Mean average productivity = 748 kg/ha.
Median average productivity = 710 kg/ha.
Average household rice supply: 3.1 months

3. Tractor-cleared intercropped upland rice with eucalyptus (n=16)
Mean average productivity = 642 kg/ha.
Median average productivity= 644 kg/ha.
Average Household Rice Supply: 4.7 months

4. Wet Rice Paddy (n=2)
Mean average productivity = 1,563 kg/ha.

This data supports the idea that higher yields were available to farmers who had the available household labour to engage with the Oji payments-for-forest-clearing program, and provides a materially-based explanation of why different villagers would 'participate' with the company's program, based on different combinations of vulnerability and household labour availability.

Pulpwood Plantations and Income Generation in Ban Sivilay

Promoters of industrial pulpwood plantations invariably point to the benefits to local communities, in the form of wage labour opportunities, as a crucial factor that justifies tree planting on degraded lands. Poverty alleviation is said to result from providing steady

income generation for rural communities previously dependent upon the vagaries of sporadic access to non-timber forest products and other natural resources. There has been significant debate on this issue. Analysis of the distribution of benefits from pulpwood plantations is dependent upon the scale of analysis used. Here I attempt a quantitative estimate of the total cash income earned by households in Ban Sivilay for 2006. This is done through accessing the village headman's recorded notes, and paper receipts from the company, for all wage-earning opportunities in Ban Sivilay linked to the Oji LPFL project for this year. It is possible that the following is an incomplete record; however I am confident that it represents a good approximation, certainly within the correct order of magnitude, of the cash returns to Ban Sivilay arising as a result of the Oji plantation program for that year.

Cash income from the Oji project was earned via four broad methods in 2006 by farmers in Ban Sivilay. These included: (i) cash compensation for the 13 families who cleared forest by hand axe; (ii) daily wages for marking and digging holes; and (iii) wages for weeding and application of fertilizers. In 2005, the daily wage rate was 18,000 kip. In 2006, this increased to 20,000 kip per day, as a result of rising demand in Hinboun district. The importance of these labour opportunities for villagers should not be dismissed; it provides an important source of cash income for villagers at a time of year

when rice stocks are low.[186]

Box 3 shows the collected data for cash income earned in Ban Sivilay for 2006, from Oji-LPFL-related activities.

Box 3: Total Household Income from Tree Cutting, Planting and Weeding Labour Opportunities in Ban Sivilay, 2006

Income from Forest Clearing (with Hand Axe):
3 Very Poor Households: $14.00= avg. $4.67 each
27 Poor Households: $1,750.80 = avg. $64.84 each
18 Medium households: $919.12 = avg. $51.06 each

Income from Planting and Weeding, 2006 (80 hectares)[187]
Total person-days in Ban Sivilay: 322
Total Payments = 6,440,000 kip (approx. US $644); or average US$13 per household.

An overall total estimate of wages paid to Ban Sivilay by Oji LPFL company in 2006 was US $3,327.42. This is not an inconsequential figure, and for many households in the village their cash income earnings would be very important components of their total livelihood portfolio. However, the discrepancy among different households is sharp; and the poorest households are not benefiting from these new waged labour possibilities. Secondly, the major portion of these income-earning opportunities were one-off arrangements for village members to clear natural secondary forests on behalf of the

[186] It should also be noted that on two of the three occasions during fieldwork when I was able to directly observe plantation labour opportunities in Ban Sivilay, the work was being conducted by persons brought in from elsewhere (Vientiane or Tha Khek). This was because the labour opportunity conflicted with the requirements of swidden agriculture and other livelihood activities.
[187] At the time of recording, the weeding in 80 hectares (areas planted in 2005) was completed, but had not yet taken place in the additional areas planted in 2006. The Sivilay headman suggested there would be an additional 5 days of weeding left for this works in the village after this date.

company. This source of income will not arise again in subsequent years. The thoughts of one village member perhaps summed up the overall sense of the village with respect to the cash labour options arising from the plantation program:

> 'Work with Oji is not a real job. The work is available just a few days at a time. It is not sustainable work.'
>
> [Village interview, February 12, 2007]

Comparing the above labour options, to the suite of forest products and services provided by the natural forest land-swidden cycles (and recalling the US$50/hectare in development compensation provided by Oji-LPFL), the limited benefits accruing to the residents of Ban Sivilay are being far surpassed by the value of the rents being allocated to Oji-LPFL.

The planting schedule of Oji-LPFL in Ban Sivilay has proceeded haltingly. In 2005: 92 hectares were planted. In 2006, 6 hectares; 2007, 30 hectares; and in 2008, 10 hectares (total to September 2008 is 138 hectares cleared and planted). While in 2007 and 2008, the company appeared to have been taking more care to clear areas of young swidden fallows (tightening the definition of 'degraded forests')—the broader point remains that these locations are only temporarily 'degraded'. In previous circumstances these fallows would have returned to mature forests. This form of development continues the process whereby locally- managed forests and livelihood systems are being inexorably squeezed, with few and uneven benefits to the villagers, and even fewer long-term guarantees. Indeed, in interviews conducted in 2008, the headman from Sivilay had apparently

informed LPFL that he would not be willing to cede any more village land for eucalyptus development. It remains to be seen whether this decision will be respected by the company and the local government.

One Sivilay resident forwarded the following perspective on the Oji land clearing program, speaking to me during a village festival in a wealthier community closer to the Mekong River. The quote shows a wry defense of the Sivilay villagers regarding their engagement with the authorities and the Oji Company, in the context of an accelerating Oji land clearing program underway across the district:

> 'Other villages beside the Mekong said to us [Sivilay residents] 'Why do you give so much land to Oji?' They said we were stupid. But now it is their turn.'
>
> (Mr. P., Author Interview, July 14, 2006)

This informant, a member of the Ban Sivilay Land and Forest Allocation Committee (which signed the LFA framework described above), gave the following perspective:

> 'One day I will confront the district and provincial authorities about this Land and Forest Allocation. Yes, the province and district said that they have to give land to the company. 'How much is up to you, and you can ask for benefits,' they said. And the province and district said that if you have degraded forest or old swidden (*pa lao on*), land you cannot use for agriculture and it has no economic trees, you can give it to the company. But at first they say you *have* to give land to the company, then they say you *can* give land with no economic trees. So they said two things' (Author Interview, July 14, 2006)

There was certainly some anger and resentment on the part of many Sivilay residents with respect to the previous headman's decision to sign the LFA agreement which had ceded all of their swidden lands for plantation development (a disgruntlement which has been heightened by the perception of the unjust loss of their irrigation pumps, which also occurred during his tenure). The (often botched) interventions of resource companies thus also becomes involves political struggles over village leadership.

Other neighbouring villages are facing broadly similar circumstances with land clearing by Oji-LPFL. The headman from neighbouring Ban P- stated in an interview (Author Interview, August 4, 2006) that the village committee agreed to allocate to Oji only 20 hectares of land:

> 'But Oji did not say anything because they already have a big area at Ban D—[the next village]. Oji arrived with the district officials, but the district also did not say anything.'

When I asked his opinion of the Oji planting program occurring at Ban D-, one man from Ban P- stated:

> 'I pity the big trees. So far, at Ban D-, I do not see anything improving. They only work day by day, for a little money. And now it is hard to find things in the forest'
>
> (Interview, August 5, 2006).

In turn, the headman (*nai ban*) of Ban D- (where BGA-Oji has cleared and planted some 415 hectares since 1998) stated in an interview:

> ‘I gave the land to the company because the district forestry staff, they said that the land is now for Oji because they have a concession with the government. When we said that the area was village land, the district said: ‘Do you have enough money to pay the tax on that land?” And the answer was no. So we have to give the land to the company. And when I go to see the district staff, they say they do not know anything. The district official said, even the big trees, 1 to 2 foot in diameter—‘don’t worry.’ But I have a lot of pity to lose that forest. I cannot say anything… In my mind, I do not want the company to come. But the officials said ‘the government has benefits from this company, and the government gives permission to this company’. In the plantation area Oji established last year, the company never asked Ban D- about clearing this area. Nobody informed us last year, they just started clearing. And then the provincial and district staff came and took away the valuable trees.’ (Author Interview, May 29, 2006).

The result of the LPFL program has already resulted in a drastically altered landscape in the uplands of Ban Sivilay, where productive forest and agricultural land is being taken out of local management. If and when the land clearing program intensifies, and up to 600 hectares (one-third of Sivilay forest-lands) are planted, a plantation-induced squeeze in potential areas for making upland swiddens will be the inevitable result. This will be followed in Ban Sivilay by reduced fallow periods, increasingly restricted forest areas for the collection of timber and non-timber forest products, and vastly reduced animal populations for hunting. New patterns of vulnerability, village poverty and food insecurity must be considered as likely. An ‘end-game’ transformation of the cultural-ecological landscape and rural livelihoods of villages in Hinboun district is underway. Locally managed forests will be replaced by rows of genetically-identical fast growing eucalypt or acacia trees. Exclusive reliance upon cloned, exotic tree species opens the ecosystem up to new risks of pests and tree diseases. The trees will grow for 5-8 years before being chipped and sent to China or Japan, and into Oji Paper’s Bleached

Hardwood Kraft Pulp (BHKP) commodity chain. The bulk of the profits will certainly leave Hinboun district with the woodchipped logs.

Oji is already leasing this land from the Lao government at a rate far below regionally competitive land valuations, which, as mentioned, could be in the range of US$40/hectare/year. If we take the loss of potential land rental income that Sivilay villagers could charge if they held land titles (compare, for example, with communes in southern China who have leased their land to plantation companies, see UNDP, 2006), spread over a developed land area of 138 hectares, the land rent being extracted from Ban Sivilay could be currently estimated in the range of $5,400 per year. If all 600 hectares are cleared, over 50 years this would represent a rent extraction of US$ 1.17 million, in present monetary terms, for this village alone. This is in addition to the significant direct damages incurred (estimated conservatively at $7,000- $14,000 per year for this village) due to the Theun-Hinboun Company, and the additional extra-normal profits being extracted through hydropower development. The real economic implications of the resource concession boom for communities in rural Laos becomes clearer, when the specific circumstances of enclosure and rent capture are documented.

5.4 Conclusion: Global Production Networks and Impoverishment in Hinboun District

In their conclusion to a 2001 study of livelihoods along the Xe Bang Fai river basin,

located just down National Highway 13 from Hinboun district, at the border between Laos' Savannakhet and Khammouane provinces, Shoemaker, Baird and Baird (2001: 59) noted that aquatic and forest resources formed the foundation for local food and livelihood security. Village-based research in the Hinboun valley confirms this relationship between people and nature, and forests and rivers. The potential threats to this system, which Shoemaker *et al*. also identified in 2001 for the Xe Bang Fai: hydropower, logging, industrial tree plantations, poorly designed irrigation systems, have all been enacted in Hinboun watershed as well. Large-scale resource development in Laos, if it is to occur, needs to take much more rigorous account of these inter-dependencies and the locally embedded nature of community resource management systems. This presents a difficult set of problems for regulatory efforts, such as environmental and social impact assessments, which seek to establish 'baseline scenarios' for monitoring, and to isolate the effects of resource commodity systems for rural communities, into discrete spheres amenable to expert intervention.

This chapter has identified the things that can and do go wrong when large-scale, industrial resource development interventions, backed up with inadequate research analysis and poorly designed, under-capitalised mitigation and compensation programs, are foisted upon vulnerable rural communities. I have introduced the features of an agrarian transition underway in Hinboun District, which may produce a new class organization in rural areas and new patterns of differentiation with respect to land

ownership. I have also paid close attention to the real political choices and specific relations of economic power in the Hinboun development context. Individual, but cumulative acts of enclosure, displacement, and ecological degradation are key features to how this agrarian transition is proceeding in the Hinboun valley.

In terms of continuing land policy reform, there are numerous initiatives under way which are revisiting the Land and Forest Allocation procedures in Laos. GTZ (2005: 25) write:

> "Securing access and use rights to communally held forest lands through the registration of communal land is… a direct contribution to the objectives of improved food security and poverty eradication."

Such initiatives towards registering communal land tenure already under way in Laos should be supported by donor agencies, and expanded, and strengthened through the new National Land Management Agency. However, this research also shows how the activities of even international, "best practices" plantation firms, such as Oji Paper, can result in serious problems for local communities in Laos when communal tenure rights are undermined through zoning of 'degraded' forests.

In terms of an analysis of global production networks, this chapter has also shown how strategic coupling and resource sector rent-seeking affects smallholder farmers and communities in particular places. I have shown how this occurs as the imperatives of GPN organization, in combination with (trans)national institutional and regulatory

frameworks reterritorialize specific places, reconfigure property rights and re-scale access to resources. The methodological limits of a purely network-based approach become evident here for understanding place-based processes, while the advantages of incorporating political ecology into commodity network studies is brought to the fore.

The most direct point to this chapter however, is in the documentation of the double-displacement effects from plantations and hydropower development, which are combining to squeeze resource access and livelihoods in Ban Sivilay. The company programs have resulted in impaired community assets and damaged ecosystems, which are not being adequately compensated for through the existing compensation frameworks and wage labour opportunities. In this way political ecology can usefully highlight the implications of modernizing resource development projects upon environmental resources, and the outcomes for village livelihoods.

Chapter 6: Remaking Spaces and Subjectivities through 'Sustainable Dispossession' in Hinboun District, Laos

6.0 Introduction

My emphasis thus far in the dissertation has been upon combining the insights of global production networks and political ecology, to understand the economic logics and political mechanisms that support accumulation through dispossession and that produces local environmental change. In this chapter I turn to what might be called the 'productive' side of policy reforms and governance around extractive industry in Lao. Following scholars such as Agrawal, (2005), Li, (2001), Goldman (2001), and Moore (2005), I employ the concept of governmentality to better understand the operation of power beyond structural processes of capital accumulation, and the bureaucratic state. I develop an interpretation of how political power works through an authoritarian governmentality of development and the making of governable spaces and subjects (Rose, 1999). I examine how power operates through situated local practices that involve the re-making of nature in the image of capitalism, and the re-shaping political subjects in the image of the market.

Here I do not seek to divorce governmentality from the previous explorations of capital accumulation through nature-based industries. Political economy and Foucauldian governmentality can be placed in a kind of productive tension (Jessop, 2007). Along these lines, Watts (2003: 15, citing Rose) writes:

> "Modern space and modern governable spaces were produced by the biological (the laws of population which determine the qualities of the inhabitants) and the economic (the systems of the production of wealth). Governable spaces necessitate the territorializing of governmental thought and practice but are simultaneously produced as differing scales by the "cold laws of political economy (Rose, 1999: 39)."

My emphasis is also less upon explicitly linking governmentality with Gramscian hegemony (see Li, 2007). While fully recognizing that rural villagers exercise political agency in their everyday lives (as I highlight below), nevertheless in Ban Sivilay, peasant farmers are also quite disconnected from any broader social coalitions in urban Laos. Unlike in many other Southern countries, overall there is little collective farmer mobilization in rural areas of Laos that is organized through civil society institutions in relation to the state project of resource development and modernization.[188] The state's basic political control over much of rural Lao society is quite pervasive, and this is backed up by memories of political incarceration and violence in the post-war Communist period. In Ban Sivilay, at the time of fieldwork there was no history of independent civil society presence. This is not to suggest that an interpretation which draws upon Gramsci would not be relevant for understanding politics in Laos, rather that I see the concept of governmentality as more useful for interpreting village-state-company interactions and developmental politics in this case study.

[188] There is continuing armed resistance by certain ethnic-linked rebel groups against the Lao government, which could be understood as a form of mass peasant resistance, however this comes out of a specific history linked to the Indochina Wars and the role of the CIA in Laos. This armed resistance movement is isolated to at most a few hundred individuals and a few small and isolated pockets in the country, although political movements against the Government of Laos still garners support from some overseas communities.

Building upon the work of governmentality scholars, I trace how the logics of resource-led accumulation intersect with the concerns of community optimization and rural development through an analysis of authoritarian governmentality in Laos. The two-point argument I make in this chapter relates to how contemporary governmental projects operate in part through the remaking of nature and territory through the production of 'landscapes of rule,' and how these spatial practices in turn become involved in the re-making of political subjectivities (Moore 2005, Goldman, 2001; Tyner, 2009). I take from Moore (2005) and Li (2007) the notion that local people can end up participating in their own projects of rule, and also that they can challenge or subvert the relations of power that seek to act upon and through them. As Moore (2005: 3) writes: "… subjects of power are active agents yet not self-sovereign authors of their own conscious will." Thus, it is not simply the plans and documents of governmental power which should hold our attention— the lived experiences and the actual practice of government, the 'sociologies of rule' (Li, 2007) also becomes a key area for analysis.

In contemporary Laos, a key set of governmental logics are founded within an ideology of capitalist techno-science, which combines deep commitments to commodification and resource exploitation, with parallel, managerialist programs around environmental conservation, and attempts to reform the conduct of rural populations along economically 'productive', market-based rationalities. For Goldman (2001) these new subjectivities are

being established through a hegemonic form of transnational 'eco-governmentality', spearheaded by the World Bank. Goldman (2001: 504) argues that this involves the making of more legible, as well as 'distinct and accountable populations', who are disciplined to act according to new environmental norms and responsibilities concerning local development.

In this chapter I build on these insights, while arguing that neoliberal eco-governmentality in Laos is nevertheless refracted through a set of ideologies and instrumentalities of power more particular to the authoritarian political context of (post) socialist Laos. I develop a critical assessment of the key mitigation and compensation schemes implemented by resource companies in Ban Sivilay— particularly Theun-Hinboun Power Co.— as a way of understanding how governmental logics in Lao resource development function in an actual village situation. Specific attention is paid to the strategies, techniques and deployments of knowledge on which eco-governmentality in Laos is based, its actual implementation, and the creative responses of local people. While connections are drawn to the Oji-LPFL forestry initiatives, the discussion focuses more on the activities of the hydropower company, THPC, as their corporate livelihood compensation interventions have been most extensive and transformative. Nevertheless, I would argue that the same fundamental governance logic of the Lao state guides the interventions of both resource companies— that is, the problem of organizing livelihood compensation for the effects of enclosure and displacement from common property

resources, through technical projects of resource allocation and re-zoning, agricultural intensification, and the commercialization of land and labour.[189]

Before delving into these questions however, I first develop a brief discussion of the historical relationship between territory, space and identity in the Lao uplands. I use this as grounding for understanding the contemporary remaking of socio-spatial configurations through authoritarian eco-governmentality in rural Laos.

6.1 Historical Socio-Spatial Identity Formations in the Lao Uplands

There are different theories and approaches to the study of ethnicity and identity formations in Southeast Asia. My focus here is on socio-spatial identities in Hinboun district and Ban Sivilay, in relation to colonial and post-colonial state formation. I develop this as a historical grounding for what will be a more in-depth discussion of contemporary transformations in socio-spatial identities and subjectivities, which are accompanying modern resource-led development and governmental programming.

[189] In other village case studies of forestry development in Laos (such as the Stora-Enso trial pulpwood project in the southern Lao panhandle), I could indeed focus in upon tree plantation companies and their partnership with local Lao state institutions, as the primary programmers and executors of advanced governmental logics. However, at the time of research in Ban Sivilay the livelihood compensation interventions of Oji-LPFL, while relevant, were not as extensive or advanced as those of THPC (for example, a plantation-based wage labour regime in this village was just getting underway at the time of research). In this chapter, I am most interested in understanding the implications of enclosure and resource sector governmental programs, as a general theoretical approach, and, most importantly, *as this plays out for actual village subjects*— i.e. people and families— in Ban Sivilay. I am less interested in seeking to delineate a particular form of governmental rationality somehow associated only with forestry sector global production networks. In addition, in the case of Ban Sivilay, there is no one single resource that determines village social-economic configurations. Rather it is the changing relationship between land and aquatic ecosystems, local practices, and external interventions, which represents the most interesting and useful way of characterizing this overall village's agrarian-environmental transition.

While ethnic identifications are founded upon shared notions of history and cultural practice, researchers in upland Southeast Asia have also explored how ethnic identities are relationally constructed, how upland people can hold multiple identity affiliations, how identities in this region can be surprisingly fluid and changing.[190] Starting arguably with the work of Edmund Leach (1954), and continuing up to the present in the work of researchers such as Keyes (2002), Jonsson (2005) and Scott (2009), scholars have shown how present day ethnic affiliations in Southeast Asia are often something less than natural or primordial identities established in the mists of history (Geertz, 1973). The political-cultural systems of upland mainland Southeast Asia, including Laos, show complex ethnic mosaics, which historically have revolved in significant part around territorial distinctions between uplands / lowlands, and *meuang / pa* (civilized town / wild forest). While these distinctions between hill and valley cultural groupings extend into the pre-colonial era, contemporary ideas of national ethnic majority and ethnic minority groupings in Southeast Asia only formed with the establishment of the modern state.[191]

As Thongchai (1994) explains, the creation of the modern Siamese/Thai state supplanted a previous system of hierarchical, fluid and overlapping political structures, and the associated ways of understanding territory and sovereignty, with closely delineated and militarized state boundaries. Technologies of mapping came to play a crucial role in

[190] Scott (2009: x) calls the uplands of Southeast Asia an ethnic shatterzone, or zone of refuge.
[191] Keyes (2002) explores reifying techniques of ethnic classification as a mode of political power.

marking the territorial extent of state power, and in defining the internal jurisdictional space, the 'geobody', of the modern Thai state. It was through the modern state-territorial grid, and through bureaucratic practices of legibility and anthropological classification, that the very concept of nation and 'national ethnic minorities' was created, solidified, (Keyes, 2002; Anderson, 1991; Scott, 1998) and often racialized (Vandergeest, 2003).[192]

Certainly, common ethnic affiliations and their relationships with territory have also developed in a more 'bottom-up' fashion. Baird (2010c) for example shows how ethnic groups such as the Brao in southern Laos and northern Cambodia have long understood these upland spaces as specifically Brao territories (as opposed to lowland "Lao" spaces)—even as some Brao groups have migrated back and forth across the international Lao-Cambodian border in reaction to prevailing national political crises. That said, in contemporary Southeast Asia, the projection of particular ethnic identifications on to specific territories is something of a double-edged sword. In many cases this has served to bolster local claims to resources from external appropriation by state or corporate actors, but at other times has led to inter-subaltern group tensions and conflict (Li, 2002).

In the last decades, collective upland identities in Southeast Asia have often coalesced around discourses of indigeneity, which can be interpreted as a political positioning

[192] Ivarsson (2008) provides an innovative analysis of how the relationship between nation, culture and territory played out in the case of Laos. Ivarsson develops how French colonial practice cultivated a form of cultural nationalism prior to World War II, as a means of bolstering their hold on the territories east of the Mekong in relation to an expansionist Siamese/Thai state. Lao cultural nationalism was transformed into an anti-colonial and territorial nationalism in the post-war period.

aimed at supporting the territorial, economic and cultural claims of marginalized sub-national rural communities (Li, 2000). This global discourse of indigeneity has not made strong inroads into the Lao context however, in large part due to restrictions on the entrance of international NGOs into Laos, and a general lack of any independent Lao civil society organizations strongly linked into these international networks. The Lao state does not recognize an indigenous category of citizens, which is an outcome of the original and explicitly multi-ethnic organization of the Pathet Lao and the post 1975 Lao People's Revolutionary Party (as influenced by Vietnam). Unlike neighbouring Cambodia and some other Southeast Asian states, in Laos there have been no specific clauses in the land or forestry laws for claiming customary rights to territory through an ethnic minority or indigenous status.

Yet, the contemporary terminology that implicitly conflates Lao ethnicity with the Lao nation has not been without problems, since half the population of the modern Lao state do not identify with the ethnic Lao (Pholsena, 2006). The post-war vertical-territorial groupings of Lao Loum, Lao Theung and Lao Soung (lowland, middle and highland groups) has been replaced by an officially-approved non-territorial listing of some 48 national ethnic peoples— although female depictions of the previous ethnic trinity still appear on the Lao currency, and in reality the issue of ethnic affiliations is highly complex and often locally fluid (Baird, 2005). Villagers might initially articulate their

identity to an outsider as ‘Lao Theung,’ for instance, and only with further conversation might they suggest more locally relevant identity markers, for example as Brou, or various sub-groups (author interviews, Atsapangthong district, Savannakhet, Sept. 2005).

Socio-spatial identities and the hierarchical power relations associated with are reflected in governance structures of the Lao state. For example, the fact that various modes of rotational swidden farming are practiced largely (but by no means only) by upland groups who do not self-identify as ethnic Lao or Lao Loum, means that state-led efforts to eliminate swidden on putative environmental and economic productivity grounds, disproportionately affects certain segments of the population. Crucially, these areas of swidden fallow are the prime areas identified as ‘state-owned degraded forest-land’, and thus available for allocation to plantation concession projects. In this way, historically constructed socio-spatial ethnic identities and livelihood practices become implicated in the advance of state-promoted industrial resource development in Laos.

While these general relationships tend to hold on a national scale, I suggest that the case of Ban Sivilay also shows the multiple livelihood practices and ecological landscapes that different villages can be engaged with, as well as the polyvalent nature of rural identities.

Ethnicity and Cultural Identities in Ban Sivilay

Ban Sivilay has not been strongly affected by circulating global discourses around land

rights and indigeneity. In terms of ethnic identity, villagers in the study community of Ban Sivilay self-identify as 'Tai Bo'. Today they could also be considered as broadly integrated with mainstream lowland Lao Buddhist culture. Tai Bo villages are typically described in the literature on ethnic identity in Laos as hailing from Nakai, Hinboun and Khamkeut Districts. Chamberlain (2002: 530), a linguistic expert of Laos, describes the Tai Bo as of "mixed origins, possibly Vietic[193] and other groups now with Lao culture." 'Bo' in Lao translates as 'mine', and Chamberlain writes: "One hypothesis is that the Bo were originally Vietic speakers, probably Maleng, recruited to work in the salt mines…or perhaps gold mines on the [Nakai] plateau." The headman (*nai ban*) of Sivilay village suggests that, while oral memory extending back more than a few generations is murky, their ancestors were said to have originally come from the area of Ban Phon Tiou, a place some 30 km to the east, where the industrial extraction of tin extends back to the French colonial period.

Chamberlain (pers. comm., Feb. 1, 2010), in reference to understandings of the history of the Tai Bo, gestures to the fluidity of ethnic identities in Laos, and its relationship with state power and political economy:

> "On the Nakai plateau, I have 'Bo' speaking various Tai dialects, such as Nyo, Phou Thay and Yooy. So the term we may assume is a non-linguistically based ethnonym – quite unusual in my experience— similar perhaps to Yao. [At the colonial mining operations at Ban Phon Tiou/Nam Pathene], a good deal of the labor would have been corvee so this may have been where the Bo came into

[193] A subgroup of the Mon-Khmer ethno-linguistic family.

> being, as involuntary labor at the mines, from many different ethnicities originally."

In fact, Scott (2009: 328), amongst others, encourages a healthy agnosticism towards the entire notion of stable ethnic identities in upland Southeast Asia, an approach that seems to fit well with the context of Ban Sivilay. Reiterating work by scholars such as Jonsson (2005), Scott (p. 269) expands on how ethnic identities in upland Southeast Asia represent little in the way of a permanent or immutable markers of identity: "…the invention of the tribe is best understood as a political project… a political device for group formation. The only defensible point of departure for deciding who is an X and who is a Y is to accept the self-designations of the actors themselves."[194]

Thus, the role of historical-colonial linkages and political economies in the making of contemporary patterns of ethnicity and local livelihood in upland Laos should not be underestimated. The notion that Tai Bo, as a self-identified ethnic grouping, may have been formed out of their common, coerced involvement with French colonial resource extraction, is one indication of the close linkages between global networks, socio-economic spaces, material livelihoods, and identities in Laos. It should not be surprising that collective ethnic and individual identities continue to be re-worked, through

[194] For ethnographies exploring models of 'situational' and 'primordial' conceptions of ethnicity and identity in Laos, see for example, Proschan (1997). See Jonsson (2005) on the multiples registers of self-representation for Mien communities in Thailand.

interactions with forces of development, engagement with markets, or migration for labour opportunities.[195]

When I inquired with the Sivilay *nai ban* about what it means to be a 'Tai Bo', he replied that one's native village would be from the Hinboun area, and that one would simply speak Lao with a Tai Bo accent. While further research would be required to more fully understand the nuances of ethnic identities in the Hinboun Valley, from my tentative reading, farmers of Ban Sivilay— especially village youth— are broadly integrated into lowland Lao, Theravada Buddhist culture. There is a village Buddhist temple (*vat*), although the community is too poor to attract, or to comfortably support, permanent resident monks. As in many areas of Laos, Theravada Buddhism in Sivilay is inflected with traditional Animist practices that pay homage to place-based, village spirit cults (Holt, 2009).

While marriage and kin networks, and state political organization for Sivilay residents centre around a cluster of neighbouring villages along the Hinboun, a broad exposure to the much larger and more wealthy lowland Lao villages along the Mekong River promotes an orientation towards 'mainstream' lowland Lao-Buddhist culture. For instance, Sivilay residents are linked into the local Hinboun district community festival

[195] For instance, as discussed later in this chapter, when Sivilay youth travel to Thailand for work, their identities are viewed by Thai authorities not as 'Tai Bo', but simply as 'Lao'— and thus possibly illegal, without border pass documentation.

circuit, including in relation to those held by villages located between Route 13 and the mainstream Mekong River. Sivilay village is too poor to hold prestigious festivals like the villages along the Mekong River, with food, alcohol, games including football matches, traders selling consumer goods, and singer-dancer troupes. Indeed, as the poorest village in the area, the Sivilay village festival does not attract many visitors at all (and there was debate in 2006 about whether they could pool enough funds to even hold a village festival). Sivilay villagers are thus situated in some tension with other 'mainstream' lowland wet rice-based villages in the district—due to their relatively low levels of economic consumption, which I have argued, is in turn closely related to the displacement and resource degradation effects of hydropower and plantation development.

As described in the previous chapter, despite the enclosures occurring through resource development, livelihoods in Ban Sivilay are still rooted in place-based resources and subsistence based activities, including agriculture, fishing, and forest-based hunting and gathering. This is not to say that livelihoods are restricted to the spaces of the village—engagement with local and cross-border (Thai) labour opportunities is also becoming an important source of individual and household income, and this is affecting personal and gendered identities (Barney, forthcoming). Yet, locally available resources still form much of the basis for the residents' engagement with the cash economy, most notably, through the selling of wild caught fish, bamboo shoots, charcoal, livestock, and woven goods. And crucially, before 2001, there was never any form of state land use zoning or

allocation in these areas of Laos. That is, the LFA program sponsored by BGA-Oji LPFL was the *very first* attempt at state land reform and the implementation of a modern classificatory grid governing resource access and use in Ban Sivilay. It is perhaps likely that village socio-spatial identities will be transformed into new directions through the outcomes of policies that produce cadastral mapping systems, and the implementing of resource concessions.

There is also little in the way of a political discourse in Laos in terms of understanding communities such as Ban Sivilay as 'indigenous', and local villagers would almost certainly be quite unaware of this term given their almost complete lack of exposure to international civil society groups, or to such ways of conceiving of their socio-spatial identities. At the same time, for urban residents of Vientiane for example, Sivilay villagers might be in some tension with dominant images of 'ethnic Lao.' For example, the use of upland territories in Ban Sivilay for livelihood practices such as swidden hill rice production (ironically, even if their reliance upon swidden is more recent, and due to the displacement effects from lowland paddy areas along the Hinboun) means that, if only by circumstance and proximity, Sivilay villagers are also confronted by a set of ethnicity-inflected discriminatory policies of the Lao state against swidden agriculture.[196]

[196] The Lao Ministry of Agriculture and Forestry claims, in English language documents, that it is only 'pioneer' shifting agriculture which is outlawed, and that rotational swidden is acceptable— on three year rotations. Yet, there is hardly any true pioneer swidden cultivation (i.e. based on clearing primary forest) still occurring in Laos today; by far the vast majority of swidden is rotational. As mentioned, three-year swidden is almost by definition ecologically unsustainable from a soil or yield perspective, and communities would typically only conduct three-year swiddens for rice production due to a set of

With this introduction to the complexities of villager socio-spatial identities, we can now examine how the implementation of transformative, state-backed extractive resource projects introduce the governmental rationale for working on both the territorial organization of village spaces, and local socio-economic subjectivities—through a logic that could be called 'sustainable dispossession.'

6.2 Making Governable Spaces and Subjects in Ban Sivilay, Hinboun District

Making Governable Spaces

> The art of government also includes, on the one hand, the *making* of the modern rational subject, and the efficient state that s/he would help build, and, on the other hand, the intensified regulation of the relation of these subjects to their natural territory. I call these productive relations of government—with their emphasis on "knowing" and "clarifying" one's relationship to nature and the environment as mediated through new institutions— eco-governmentality.
>
> (Goldman, 2001: 500-501).

Governable spaces can be defined as the territorialization of governmental thought (Rose, 1999; Watts 2003), based on the administering of resources and populations. Under this framework, space is formed into district territorial arrangements in ways that promote the more effective government or rule of populations and resources. For Rose, 'to govern is to cut experience in certain ways, to bring new facets and forces, new intensities and

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constrained choices around land availability, or through state coercion. The Lao government maintains discriminatory policies towards swidden, and these distinctions between pioneer and rotational swidden are for the most part moot. At the district policy implementation level, these sorts of distinctions around the precise definition of rotational swidden are often lost.

relations into being." (1999, 31). The making of governable spaces can include the application of violence to a population (Watts, 2006).

In Laos, I forward that a primary political technology for producing governable spaces is the resource concession.[197] Given the limited reach of practical state authority in many peripheral upland areas of Laos, I argue that, in effect, the Lao state cedes de facto management control over these spaces and communities to concession-holding resource firms. Companies of course receive a high share of the profits and rent-generating opportunities of these concessions, but in many cases the (perhaps unwitting) developer is also handed responsibility for the welfare of local populations as well. That is, the Lao state is establishing its sovereign control over territory and populations, and producing governable spaces, in significant part *through* resource developers and the concession system.

In the hydropower sector, the making of governable spaces can be the subject of intensive programming and regulatory efforts, although these are not allowed to interfere with the approval of projects or the overall maximization of profits. In many other cases however, especially those backed by regional investors (e.g. the Nam Mang 3 project), hydropower projects have been implemented without any of the best practice procedures and safeguards. Thus, for hydropower investors, to a large extent the making of 'governable

[197] I refer to concessions as long-term leases to rights over forest-land, hydropower operating areas, or mining sites, ceded by the Lao state to resource companies.

spaces' involves the basic freedom to externalize the ecological and economic costs of dams onto downstream communities. Through THPC's Environmental Management Division programs, sufficiently 'governable' spaces have been established for hydropower development to proceed on the Hinboun River, which allows for revenues to flow and for the project to continue to receive international backing and support from donor agencies and Western investors, even though THPC has produced significant impairments to ecosystem functioning and to community livelihoods.

The making of governable spaces in the plantation sector, (as introduced in chapters 5 and 6), has been closely related to the Lao government's forest-land allocation and zoning programs, and the delineations of village forest-lands into different categories of prescribed land use which seeks to separate forest from agriculture.[198] LFAP and its successor, Participatory Land Use Planning (PLUP), can be understood as a core component of how governmental programmes work through the mapping and re-making of territory and nature in the Lao countryside. Administrative categories of 'nature' (as degraded forest, conservation forest, protection forest, and so forth) are produced through a set of technical and representational practices, and these modes of governmental thought and practice then become objects for further management intervention (e.g.

[198] It bears recalling that from 1975-2000, the role of the socialist Lao state in actively remaking village spaces in Ban Sivilay was quite limited. Through the post-conflict period, the country was in effect bankrupt, the state was only minimally operational, and the country was relatively isolated from broader Southeast Asian transitions. From local accounts, agricultural collectivization (involving only wet rice paddy) was very partial and short-lived in Ban Sivilay, and prior to 2000 there was never any previous state land zoning or systemic land-based taxation system implemented in this village. This makes the contemporary transformations all the more dramatic.

Braun, 1997). Yet, the making of governable plantation spaces in Laos does not work simply through an application of neoliberal, international organization-supported, techno-science. While the current land reform policies in Laos are being conducted in the general political-economic interests of state agencies and developers in terms of how they can provide access to resources and enable extractive development, parallel logics of authoritarian state control, bureaucratic competition between national and local domestic institutions (which can be intensified by continually shifting donor priorities and funding arrangements), and capacity weaknesses in the Lao state (Fujita and Phengsopha, 2008; Lestrelin, 2010), also play important roles in the making of governable forest-land spaces in practice.

The effects of neoliberal land zoning programs in the making of governable spaces in Laos are further mediated and re-worked, through the ways in which local officials and villagers actors (and in Laos, many local officials are also 'villagers' themselves) actually understand and interpret the terms and prescriptions of these policies. An example from Ban Sivilay can help to explain.

In village walks with the *nai ban*, my assistant and I asked the headman to point out the different land use zones which were mapped and posted on the village signboard (e.g. conservation forest— *pa sa nguan*; protection forest- *pa pongkan*). As explained previously, the headman and other villagers typically had other names for these forests

and did not understand the government's technical terms for categories of forest-land, and they already had their own regulations around removing valuable trees from certain areas irrespective of the state's LFA protocols. Villagers conducted their swiddens in areas of *pa lao kae* (recovered 3-10 year old forest fallow areas), while avoiding the areas of *Phou Din Bet*, or the tall forest where the village *phi* spirit shrines were located (*dong hor*). Some of the forest where Sivilay villagers set small traps for animals was actually located in the territory of the neighbouring village, Ban D—. This patch of forest was known as *pa xa gao* (old cemetery forest) which marked the previous location of Ban D— before they relocated closer Route 13, and specifically the areas where they used to cremate their dead.

No villagers that myself or my assistant spoke to in Ban Sivilay quite understood the forestry department's technical land use categories in the LFA map. They had their own historical names for these areas, and their own, flexible and adaptive forms of property and regulations that governed resource use. The areas that were zoned for development by the Oji LPFL plantation company were similarly vague in the minds of villagers.[199] It should be noted here that that the land clearing by plantation companies also did not respect the LFA maps in Ban Sivilay or elsewhere in the district, even though the LFA

[199] Interview, June 2006. At the nai ban's house: I asked about where the number 610 hectares for plantation land to BGA comes from. The *nai ban* has no idea where this number comes from: "People only know about the border of the village. They are not sure how much land in hectares the village has." Some villagers had a vague notion that the previous headman had signed the document that designated most of the village forest area 200 m away from the Hinboun River for tree planting to BGA-Oji.

maps were produced through company support. Although the *nai ban* was charged with overseeing the land clearing conducted by the subcontracted bulldozer, the headman did not understand the land use designations of the LFA map, and the company did not particularly follow them either, other than generally avoiding areas of very tall forest. Thus, while new disciplinary spatial regulations had been enacted in Ban Sivilay, which sought to govern relationships of local actors to territory, villagers had certainly not fully internalized these governmental prescriptions, and the ability of the state to fully enforce these disciplinary measures and shift villagers to the ideal of commercial plantations combined with intensified local production in registered plots of land, was very uneven. This is suggestive of a reluctance by villagers to recognize the state's project of re-defining forest spaces, and perhaps reflecting a degree of resistance and contestation as well.[200]

While there were significant misalignments and confusions between the official zoning, villager's understandings and their everyday practices within the landscape, and the company's actual land clearing process, the combined outcomes did produce real, material effects on the ground, a version of a more governable space— in the form of the actually-established tree plantations of Oji-LPFL. Towards the end of my fieldwork the villagers of Ban Sivilay in fact began to more actively contest the land clearing process, forwarding complaints to the district forestry office that they did not wish to allocate any

[200] I thanks Shubhra Gururani for highlighting this.

more than the 138 hectares of village land Oji-LPFL had already placed under company cultivation (out of a potential zoned area of 610 hectares). Governmental projects initiated the process of producing modern landscapes of resource extraction, but the actual, on-the-ground situation very often escape from the state's directives.

The end result of governmental interventions around land in Laos is a complex and contextual mixture of the 'cold laws of political economy', neoliberal-influenced state governmental programmes, as well as the locally-mediated, contingent and uneven capacities of the Lao state. To reduce this collection of interventions and practices to a derivative sub-type, of 'neoliberalism with Lao characteristics', is, I suggest, to miss the most crucial and indeed interesting aspects of how national to local factors strongly influence the making of governable spaces in the country. My interpretation of the contemporary re-making of governable subjects in Ban Sivilay is predicated upon this history of socio-spatial identities and governable spaces in Hinboun district.

Making Governable Subjects

By governable subjects I refer to how subjects incorporate state ideologies and objectives, and come to think of them as normal, legitimate and rational. For Watts (2003: 20), in the contemporary neoliberal-influenced period, a "…governable subject is de facto a sort of employee." As with the production of governable spaces, the resource concession system is a crucial facilitator of the making of governable subjects in Laos. It is important to note

that in Ban Sivilay, the two resource companies, THPC and Oji-LPFL, hold a much stronger embodied presence in the village than does the Lao state. This is not to suggest that the Government of Laos lacks sovereign authority in rural areas, or that the state cannot exert control over investing resource firms. Rather, I suggest that centralized state sovereignty and enhanced governmental control over populations are being established both through state policy, and through the social and environmental programs of corporate resource developers. To better understand whether and how rural people in Laos are being incorporated into these new arrangements of governmental power, I closely examine the actual implementation of resource sector compensation and mitigation programs in specific locales.

My discussion centers on the interventions of the Theun-Hinboun Power Company for this portion of the analysis, as their livelihood programmes have been the most transformational in Ban Sivilay. However, the relationship between the two companies in transforming the spatial practices and ecologies of Ban Sivilay is also an important consideration, and these are drawn out where relevant.

Resource Sector Compensation-Mitigation, and the Making of New Political Subjects in Rural Laos

Understanding the ways in which resource development interventions involve the making of new political subjects in Ban Sivilay, first requires a baseline understanding of the

organization and outcome of company-led livelihood compensation projects. The making of governable subjects does not ultimately depend upon a narrow technical interpretation of the immediate success or failure of these company livelihood programs. I view subject formation as linked to the broader project of re-ordering access to resources, via a continuous project of re-working the system of incentives through which villager's livelihoods practices are oriented. Nevertheless the general inability of THPC to effectively engage with villagers, especially poor villagers, in these programs, is important to recognize, as this highlights the very uneven ways in which the practical project of eco-governmentality and governing through markets has actually proceeded to date in Ban Sivilay.

The initial form of THPC compensation for livelihood losses in the Hinboun valley was support for dry season, irrigated rice production. In Ban Sivilay and elsewhere, the initial materials to support this project, in the form of diesel pumps and irrigation infrastructure, were supplied to the villages between 1996-1998 by the Government of Laos, through a rural support project unrelated to THPC. In the first year of operation (around 1998), Sivilay villagers reported good results with the GoL irrigated dry season rice scheme. Loans were secured from the Lao Agriculture and Promotion Bank for covering the costs for diesel fuel. Harvests were said to be high, with yields achieving 120 *sop* per 4 *rai* (at 35 kg per *sop* of unmilled rice, this translates into a very impressive 6.5 tonnes unmilled rice per hectare). In the second year, the same twelve Sivilay families again enrolled into

the irrigation scheme, however this year the yields plummeted, at the same time as input costs rose. Villagers reported that their crop was affected by a rice disease, and they came away with a total harvest of only six *sop* (210 kg) over the entire 36 *rai* (5.75 hectare) irrigated area. By year three of the government irrigation project, in 2000, the scheme had collapsed, amid much acrimony in the village. Strong tensions had emerged in the village concerning the spatial arrangement of the irrigation canals, which left some farmers' fields in a disadvantageous position relative to the irrigation ditches. Other villagers also reported in field interviews that due to poor management of the irrigation system, some fields were flooded while others had insufficient water.

Perhaps because of these problems with the dry season irrigation system, in 2001 a new headman (*nai ban*) was voted into office in Ban Sivilay. In the dry season between 2001-02, this newly elected *nai ban* (Mr. H) gave permission for the pumps and irrigation equipment to be removed by district authorities, for re-allocation to two upstream villages. This question of the removal of the irrigation pumps continues to be a divisive political issue in the village, and it has served to divide the village into competing political camps, based around the former and the current headman. Many in the village say that the previous *nai ban* did not consult the rest of the villagers or the village political committees before allowing the water pumps to be given away. The present *nai ban*, Mr. P, voted into his position in 2004, is at a loss to explain Mr. H's decision. In an interview, the head of the THPC Environmental Management Division interpreted these

problems in Ban Sivilay as reflecting a lack of effective village leadership (Interview, April 30, 2006, Ban Nahin), and seemed to prompt the notion of Ban Sivilay as a 'problem village' for THPC's programs.[201]

Only twelve out of approximately 50 households in Ban Sivilay had enrolled into this first GoL dry season irrigated rice scheme. In interviews, other Sivilay families expressed their reluctance to participate in terms of a fear of entering into a debt relationship to the Agriculture Bank. Many stated that, at the time, they still had their own riverside paddy fields, which they could still farm in the wet season. But events in relation to the THPC project were about to overtake them. While the government irrigation scheme had collapsed by 2001, in Ban Sivilay this was also the last year that a significant number of families attempted to plant their usual *wet season* rice in their fields on the east bank of the Hinboun River. From this point onwards, increased hydropower-induced wet season flooding on the Hinboun swamped their efforts, and no wet season rice crop has been harvested successfully since that time in these locations. In other villages in the Hinboun valley, the THPC EMD has reported major early successes with their efforts to re-invigorate dry season irrigated rice production. Unfortunately for the people of Ban Sivilay, since 2002 their irrigation boats have sat unused, with one parked beside the headman's house, and the other on the opposite shore. They are stripped of their pumps, and one of the pontoon boats now serves as something of a covered storage shed for the

[201] See Barney (2007) for a more detailed discussion of this incident.

headman.

The 2005-2006 dry season started optimistically in Ban Sivilay, with the arrival of a new THPC subsidised irrigation scheme— dry season maize. Fourteen households, (all drawn from wealthier stratum of the village, with available household labour), decided to take the risk. Yet, the maize project has also met with very limited success. By the time of my follow-up trip in February 2007, the participating Sivilay villagers had made the decision not to continue with this project option. From the project results, the reason for a less than enthusiastic response becomes apparent. The top maize income earner, a former village *nai ban* and one of the hardest working and most skilled farmers in the village, was able to come away with an adequate profit of about 720,000 kip (approx. US $72.00) on 2 *rai* of dry season maize.[202] The lowest net return after input costs came in at only 45,000 kip (US $4.50) for the effort of growing one *rai* of maize. Farmers who had located their fields situated closest to the Hinboun river came away with higher yields. The irrigated corn system did not enroll any of the poorest households in Sivilay village.

In 2005 a THPC dry season irrigated vegetable garden project was also developed, to replace the traditional vegetable gardens grown along the banks of the Hinboun. To a limited extent these riverbank vegetable gardens can still be cultivated, however the extent of sheering erosion occurring as a result of increased river flows makes this

[202] Although that was only because a calculation error was made by Theun-Hinboun field staff, and his input costs were calculated for only one *rai.* Note that 1 hectare = 6.25 rai.

traditionally-important food production system no longer feasible in most of the village riverfront. The aim of the THPC support for these irrigated gardens was to promote a transition into growing and selling produce for cash. After installing an irrigation system with floating pumps, and providing three years of input support for diesel, fertiliser and seeds, the program was designed to become self-supporting, whereby the revenues from the sale of vegetables would be sufficient to cover the costs of inputs, and to generate a surplus. In 2006, 25 out of 48 Sivilay village families were enrolled in the project, and the gardens provided nutritious vegetables for many families. Again however, very few of the poorest families were engaged, and no families were able to make the shift to selling produce in the district market at Ban Songhong. From observing the everyday manner in which the produce was used by women in household cooking, most were more interested in using their vegetables to provide daily food security, rather than negotiating complex and contingent arrangements for bringing the produce to market; of which few had any experience. It remains to be seen what will happen to this program, after the THPC subsidies for diesel fuel and inputs are ended.

Overall, THPC's overall program in the village has had little success in promoting comercialisation, particularly with enrolling the poorest households in Ban Sivilay. An array of factors work against the inclusion of the most vulnerable families: including a typically short supply of adult household labour; a calculated conservatism by the poor regarding enrolment into what are often risky new production systems; and the

generalised effects of a reinforcing pattern of social marginalisation within the village. An analysis of household participation in the other THPC livelihood programs, including an irrigated dry season vegetable farm, a village revolving fund, a livestock vaccination program, and an outhouse toilet construction program, clearly highlights the exclusion of the more vulnerable households from THPC's development programs.

Box 4: Summary of Ban Sivilay Household Participation in Theun-Hinboun Compensation Programmes, 2006 (see Barney 2007 for comprehensive details)

Average Participation Index: 1.52/4

3 Very Poor Households:
Average Participation Index: 0/4

27 Poor Households:
Average Participation Index: 1.41/4

18 Medium Households:
Average Participation Index: 2.06/4

Number of Sivilay households not enrolled in any THPC compensation and mitigation activities in 2006: 10/48

*(Village livelihood rankings were conducted through close and extended conversations with the village headman, as opposed to self-assessment by households)

What stands out about Ban Sivilay when considering the making of governable subjects, is its status in the perspective of staff from Theun-Hinboun Company as not just a poor village, but, in comparison with other villages within THPC's Environmental Management program, as a '*problem village.'* It is through this rationality, the *process*

whereby THPC endeavours to have its livelihood programs adopted– and the company's attempts to convince villagers to do 'as they ought' (Li, 2007: 5)— that we can understand both the operation of pastoral power in Ban Sivilay, as well as the limitations of governmental strategies in defining, controlling and regulating village subjects.

To help explain this, I present below my notes from a discussion on the porch of the headman's house in January 2006:

THPC Fieldworker: [Ban Sivilay] is a problem village. Other villages got their toilets in 2002-2003. Here, the people did not want the toilets. It was the same with the irrigated gardens— at first they did not want them. The company gives free oil for the garden pumps, for three years. If the villagers plant fruit trees, then after three years the trees do not need water. The company would give everything they need, but the villagers do not understand. Households don't like to make the vegetable gardens— but they make their own by the river! There are often problems with this village.

Nai Ban [nodding]: We have to discuss many times for this village to understand.

[Author Notes, Jan 2006]

Author: Maybe Theun-Hinboun should be cooperating with Oji, and coordinating their village development plans?

THPC Fieldworker: "We never meet to share ideas. I am scared that Oji will come and cut down the trees. Maybe the bosses [from the two companies] talk to each other, I do not know."

[Author Notes, Jan 2006]

This conversation highlights a number of issues of interest. First, it points to how the *nai*

ban is learning to understand some of the issues, problems, and the techniques that THPC use to establish their programs in the village. The question was not whether villagers actually want the outhouse toilets, or that they would have rather continued with their customary practices of establishing riverside gardens, or that they may have had little previous knowledge of how to plant and maintain fruit trees. The conversation focuses upon the question of how to get villagers to enroll themselves into the compensation schemes. Other more structural political issues, for example whether the two resource companies are effectively coordinating their efforts, or how, for example, the enclosures enacted by Theun-Hinboun would affect Oji's village operations, and vice versa, and how this might introduce a new set of constraints with the compensation programs, are beyond the interventions of the company fieldworkers.

The village headman was in a particularly liminal position in this context, attempting to mediate between villagers who were experiencing the livelihood impacts from resource development, and the companies who were seeking to implement their compensation programs. Yet, according to the headman, it was the very precariousness of his leadership position in the village— paradoxically, the fact that he was not a relatively wealthy person or with a higher level of education— which led to his inability to convince other villagers to engage in the participatory company programs. The *nai ban* shared some of these opinions, to myself and my field assistant, during our daytime walks or nighttime conversations around dinner.

Nai Ban:

> "Next month I want to take a break from my responsibilities with Oji. It is causing me too many headaches. Other village headmen have fewer headaches, because they are 'higher', with more education and more power."

[Translated conversation, January 2006]

Nai Ban:

> "If I encourage the other villagers, for example to plant a vegetable garden with THPC, they think I am 'oppressing' them. It is difficult to be a *nai ban* in this village, because the people do not respect me, and I have low money and status."

[Translated conversation, April 2006]

Nai Ban:

> "I get a headache (*jep hua*)! I am the middle person between villagers and the company. But people just focus on planting rice, they just think of how this is a big forest and [if it is cleared for the Oji plantations] how it will be good for planting rice. They don't focus on their labour, how much they are being paid."

[Translated conversation, April 2006]

The politics of who did and who did not become involved in THPC programs in this village was quite complex, and these issues seemed to operate for the most part beneath the radar of THPC company field staff. For instance, rates of participation involved not just wealthier versus poor villagers, but also was tied to different political factions and family-based alignments within the village. As described in Barney (2007), a number of village households had grown frustrated with having their living spaces submerged during each wet season by THPC-induced flooding, and had moved their homes up to a new location, on higher ground behind the village schoolhouse. In the process they had formed something of a new 'suburb' of Ban Sivilay. This cluster of households was organized

around the family networks of a particular individual—Mr. N—. While N— was not considered a top political leader in the village, he was widely respected due to his capabilities in farming, fishing, and hunting, and due to his general capacity for hard work. His extended family networks formed a type of 'swing voter' bloc within the village, which could decide, for instance, who would become headman. In a conversation, the *nai ban* noted that Mr. N— and his kin group rarely participated in the THPC village programs:

Nai Ban:

> "Most of the people who moved to the new village area are all cousins of Mr. N--! Mr. N— moved there first. In that area [the north area of the village], now only Mr. K— and Mr. W— participate in the THPC programs."

Author:

> "Why is that?"

Nai Ban:

> "I do not know how to explain, it depends on their mind. Maybe if Mr. N— participated, the others would also."

[Translated conversation, April 2006]

Thus, while THPC was correct to interpret that village politics in Ban Sivilay affected rates of participation in the company's programs, it is also the case that these political tensions were often an outcome of the negative effects of the company's operations for village livelihoods and environments.

The provincial forestry offer who had managed the coordination and implementation of the land zoning process in Ban Sivilay also pointed to internal tensions within the village,

which if not created by, were certainly exacerbated through the interventions of Oji and THPC.

Provincial Forestry Officer:

> "The problems of Ban [Sivilay] are similar to the neighbouring village. The villagers blame the *nai ban* for working with Oji, and they say that he gets some corruption.
>
> [Translated conversation, early July 2006][203]

Different interpretations for the relatively poor status of Sivilay villagers compared to other villages in the district, went beyond the question of lack of participation in the THPC livelihood programs, or opportunities for wage labour with Oji Paper. One conversation at the *nai ban's* house for example placed (quite insightful, if politically incorrect) emphasis on the villagers' problems with accessing the patron-client system of the Lao civil service, an inability to develop illegal money making schemes, or to take advantage of illegal options for cross-border employment across the Mekong river in Thailand.

Nai Ban:

[203] It should be noted that I never came across any evidence for 'corruption' in Ban Sivilay, and in fact the *nai ban* made a strongly positive impression on me regarding how he sought to manage village issues and conflicts, and village-company relations, in a non-partisan way. The *nai ban* received a US$50 per month payment from Oji LPFL for his work managing and overseeing company operations in the village. While not an insignificant amount for this village, there were other Sivilay villagers who had an equal or greater standard of income, housing and commodity consumption than the *nai ban* (the key productive asset is ownership of livestock).

> "Ban Sivilay is behind if compared to the education of other people. Other villages have people who work for the government, at the district or provincial level. But nobody in Ban Sivilay does this.

Nai Ban's Cousin (visiting from another village):

> "In our family, only Mr. P (the *nai ban*) is poor! People who live at the Mekong bank got rich quickly, because they are close to Thailand. They planted *saa* (marijuana), and they sold it to Thailand and got rich. They did this more than 10 years ago. Then the Lao government stopped people from going to work in Thailand, but people who live at the Mekong riverbank go anyway, because they can pay the fine."

[Translated conversation, July 28, 2006]

The sum effect of these interventions in the village involves disciplining villagers' relationships with the environment and space, and facilitating their orientation towards market-based production. That is, a type of territorially-inscribed, disciplinary-pastoral governmental power is being enacted, whereby villagers are becoming oriented towards intensive, ostensibly more 'productive' agriculture, aquaculture, and livestock rearing techniques on limited parcels of territory, with the ultimate objective of moving their practices and their everyday orientations more fully into the commodified cash economy. Crucially, in Laos, governmental intervention also takes on decisively authoritarian characteristics. Although villagers can and have raised certain complaints with district authorities, this occurs within a set of ultimate limitations— there certainly are no domestic civil society organizations in Laos which might more vigorously contest large-scale resource projects like Oji LPFL or THPC. In Ban Sivilay therefore, the disciplinary power of an authoritarian state is combined with pastoral power of internationally-backed

approaches to mitigation compensation. As Bevir (1999: 354) notes:

> "Pastoral power… has to flow trough the consciousness of subjects in such a way that they internalize the relevant laws, rules, and norms so as to regulate themselves in accord with them. It operates not as a direct, immediate form of domination as does violence, but as a type of influence. Moreover, because it must work by convincing the subject of the rightness of certain acts, it must treat the subject 'to the very end as a person who acts.'

Nevertheless, the highly contingent and uneven character of this governmental process, of working upon villagers' ideas and practices through development programming, should not be underestimated. As Bevir (1999) argues: *"[T]he subject still makes the social world…"*. A case study of a poorer household in Ban Sivilay can be used to explain this further.

Short Interview with Mr. G— and Ms. B—. Ban Sivilay, July 2006 and August 2007

> Mr. G—'s swidden field did not burn well in early 2006, due to early rains. He did not get any rice planted, because of the poor burn. He also did not plant any rice in the areas cleared by the Oji tractor, because he thought it would be better to plant rice in a swidden field. Mr. G— has a privately claimed area of village territory, less than 1 hectare, which he has marked out. As of July 2006 he was one of only a few people in the village who had claimed individual areas of village territory, for the purposes of tree planting. He had planted different fruit trees: pineapple, banana, mango, and next year he hopes to plant longan.

This year, in order to earn money to purchase rice for his family he plans to sell his labour, cutting wood for other villagers. In Ban Sivilay the wage rate is 60 baht (a bit less than US$ 2) per day. He also does fishing in the Hinboun, and he works sometimes at a neighbouring village close to the Mekong River, in their rubber plantations. He has never gone to work in Thailand.

He does not participate much with the THPC compensation program activities. He owns no productive assets or consumer goods. Mr. G— states that three years ago his family was extremely poor, their house could not even protect them from the rain. But now he has a better house with a tin roof, and enough money to rent a solar electricity panel, at a rate of 35,000 kip per month, which provides a light in the evenings [note that on my return visit in 2007, Mr. G— had to give this up, and he had returned the panel to the solar company].

This year he will have to borrow rice from neighbours to feed his family. Although he and his wife had worked for some days with the Oji-LPFL Company, planting trees and weeding, the company was late with the payments. Oji takes up to 3 weeks to repay for labour performed, but he requires money immediately to buy rice for his family. He and his wife made $10 USD, for 5 days of work, between August 9-12, 2006. To purchase one sack of unmilled rice, it costs 190,000 kip [approx, US$19], but when he borrows in advance, even from a

neighbour in the village, he has to pay it back at a rate of 230,000 kip [approx. US $23]. As of start of 2007, he had an accumulated outstanding debt of 200,000 kip [US$20], owed to other village neighbours.

Mr. G and Ms. B had no time to participate in the Theun-Hinbun sponsored irrigated vegetable garden, because he was busy making charcoal for sale at that time. And with 3 young children, they usually only have one available extra labourer in this household. With respect to the Theun-Hinboun irrigated maize project, he would have liked to participate, but he had no money to pay for renting the cultivator to plough the fields. To rent a rot tai naa cultivator costs 400 baht [Approx. $13.30] for one field of that size. And he has no buffalo or cows to do the plowing, and no savings or cash to purchase a calf.

In the past Mr. G— states that he used to harvest 60 bags of rice from his area of wet rice paddy area alongside the Hinboun River, [@ 30 kg each= 1,830 kg, in 0.89 hectares]. It was enough rice to last for a full year.

A return visit to the village in 2007 showed that Mr. G— had established a crop of swidden rice, although he said he was worried, since this year there was a disease affecting the growth of the rice.

> Mr. G— and Ms. B. have had two previous children pass away; the first at 2 months of age, and the second at 3 days old. Some days, he states, he loses his courage (‘kam lan jai’) to continue.

The experience of this household highlights a number of crucial issues for understanding how governmental power is being organised and materialized through state-developer interventions in Ban Sivilay. First, it shows how the making of governable extractive spaces in Ban Sivilay has already constrained and disciplined the production of environmental livelihoods through enclosure. Second, the notion of government through pastoral ‘self-regulation’ needs to be considered in actual context, as the reality for this family is that they have not had the basic opportunity to engage with much of the development programmes offered by Theun-Hinboun and Oji Paper, due to the constrained situation of their household. Third, it is of interest that Mr G and Ms B, amongst the poorest households of the village (these are parents in the community who would wake up every morning unsure of how they would provide food for their children), were nevertheless, in 2006, one of the only three families experimenting with claiming private landholdings out of common village lands, for developing a smallholder fruit tree plot. This of course is just one household example, but nevertheless it highlights how some of these ideas around private tenure, market-based production, and a shift towards smallholder plots of ‘improved’ land are not completely alien or external to village ideas and practices. It highlights how even the poorest in a community are ‘people who act.’

Even within the same individuals, these actions can be in tension with, or dovetail with, the external governmental objectives of 'neoliberal' development programmers in rural Laos. In the last section of this discussion around governmentality, I highlight a narrative that further situates how local agency, and place-based ideas and cultural practices, can elide external efforts to 'conduct the conduct' of Ban Sivilay villagers.

String Theory

On my most recent trip to Sivilay village, in September 2008, I was out with my field assistant, and a colleague from a provincially-based international NGO (who worked in a neighbouring district), taking a walk through the village upland forests and having a look at the new arrangement of swidden fields, the farmer-rubber plots, and the new forest-lands that had been cleared by Oji LPFL. We also took a walk through the village protected forest— on top of 'Duckfoot Mountain.' What was interesting is that we came across evidence that somebody, perhaps a villager, perhaps a worker from Oji-LPFL, or someone else, had been cutting down a number of large valuable trees and sawing them up into boards. Cutting trees in the village protected forest is against both official regulations, and local customary practice. The mature hardwood trees in this area of forest at the top of Duckfoot Mountain would probably be worth thousands of dollars each, a tempting target for both locals, and any outsiders who could now access these valuable forests via the new Oji LPFL plantation access roads. I was going to discretely

inquire with the *nai ban* concerning who had cut these trees, or indeed whether he was aware of it.

On our way back to the village, I came across a new *phi* spirit shrine in the far northeast corner of the village common, behind the schoolhouse. I noticed it immediately because this shrine had not been there before during my longer stays in the village. Upon returning to the headman's house, I noticed a white *string,* of the same type used around wrists in the *baci sou khuan* ceremonies (Ngaosyvathn, 1990), or at times in Buddhist temples, running through the trees behind it. As I followed it, the line of string extended around the entire village household space of some 5 hectares (the *khet khoom khorng khong ban*). In addition to the spirit shrine, and the string, as I walked through the temple (*vat*) compound, I also came across a number of small sand stupas, just a few inches high, with candles in them, in various spots on the temple grounds.

The story, the *nai ban* said, was that the villagers recently held a ceremony called a *sud.* A monk had come to officiate the *sud*, and the villagers had made the spirit shrine, the sand stupas, and wrapped a string around the village common. According to the *nai ban,* the villagers requested that a monk come to visit them and perform the ceremony because a malevolent female spirit— *Nang Tiem*— had been causing people to fall ill. Not less than four village women had fallen sick within a week, and one young man had also fallen down shaking with convulsions (these five people are all close neighbours in the

spatial arrangement of households). The headman stated that *Nang Tiem* had come to visit the villagers in dreams in the night, because some people— he did not say who— had and cut down and removed a number of large trees in the protected/spirit forest. Was the perpetrator the young man who had fallen down shaking, or someone from outside the village? (I had the sense that it was not polite to ask).

> "*We did the sud ceremony in September, and now everyone feels better. We also tied the string around the village, and made the sand stupas. This is the first time we have ever done this ceremony in this village, it is only something we might do if many people fall sick or die*." [Translated Interview, August 2008]

There are a number of ways of interpreting this event, and I am reluctant to build the field information I have into an overly elaborate interpretive framework. But what does seem clear is that the use of Buddhist and *phi* rituals, including strings, in forming a kind of protective counter-measure in the face of transgressions to village customary belief and regulations was related to the use of resources within sacred village spaces. Whether the villagers called for an emergency *sud* ritual as a response to the loss of a few valuable trees on Duckfoot Mountain, or whether the call for the ceremony can also be understood as in part a reflection of the wider stresses that the community is experiencing, including the multiple land and river enclosures linked to Oji LPFL and THPC; the prospect of wholesale village relocation away from the river, due to the Theun-Hinboun Expansion Project; and the rapid outmigration of almost all of the village youth to illegal or precarious work sites in Thailand, I cannot say definitively. However, the fact that

villagers reported never having previously performed this string ceremony suggests that some rather exceptional circumstances were at work. Strings might be understood as involved in the maintaining of a community sense of place and social-landscape. Perhaps, in certain circumstances, material-symbolic strings can even be deployed as a kind of protective mechanism (as is done in the *suu kwann bacci* ceremony for individuals), in this case used in the buttressing of a community's territorial regulations, and village cohesion, in a context of rapid, externally-driven socio-cultural dislocations and programs aimed at the re-making of the village into a governable space.

6.3 Discussion- 'Sustainable Dispossession' in Rural Laos: From Enclosure to Governmentality

A spatial and material approach to governmentality opens a number of conceptual possibilities. Governmentality as a concept offers a route beyond the binary debates around "sustainable development"— which in Laos is based upon a neoliberal-inspired push for large-scale extraction and the enclosure of communal territories. Instead governmentality promotes a re-examination of the categories through which to understand and evaluate the modernizing project in Laos, such as nature, resources, community, and national development. Governmentality is useful for highlighting how the state is not a unitary actor, and how development operates through multiple pathways. The argument is that there is no single, coherent master plan through which governmental power operates, and no single institution or individual which 'wields' power. Power is instead understood

as a relational effect that operates through society; it is the outcome of continuously re-adjusted development initiatives, discourses, policies and practices, which seek to guide the appropriate behaviours of populations, and to reframe and territorialize the conduct of social and economic activities. Governmental analysis applied to territory and nature offers insights into how institutions (state-based, corporate, and international organizations) seek to control, re-organize and optimise the use of natural resources. Territory here is seen not as not an inert or passive concept, or an essential material reality (Elden, 2007). Rather, through the modern state, space is actively produced, and, through its organization into governable spaces, territoriality and landscape become agents in the formation of political subjects.

One of the core insights from Agrawal's (2005) work on government through community forestry and conservation in India relates to how state interventions around the management of nature becomes closely involved in the remaking of subjectivities and the re-constitution of local identities. The work of Goldman (2001, 2005) is also relevant for understanding the production of development subjectivities in Laos. Focusing on the role of the World Bank in Laos, Goldman (2001: p. 514) writes that [the Bank]:

> "… makes its objects of study accountable in two senses: first, in being counted and hence made visible locally and transnationally, and second, in reference to new environmentalist norms and responsibilities with their institutional policing and extractive capacities… newly identified citizens gain responsibility to act in specific ways… In this way, new subjects are born and new subjectivities are created, however targeted individuals choose to act."

This new reality represents the basis for political subject-making, shaping, in Goldman's felicitous phrasing, how "…citizens gain responsibility to act in specific ways." As Agrawal (2005: 166) writes with respect to decentralized forestry in India, a core component of governmental analysis at the community level concerns the ways in which political subjects make themselves, that is: "…the variable ways in which self formation takes place and how it may be shaped by *involvement in different forms of practice*" [emphasis added].

In a reading that diverges from Goldman, based on the research material present above I suggest that Sivilay villagers retain the capacity to act creatively to re-work the effects of governmental interventions in their lives. While by no means immune to or situated outside of the new constellation of disciplinary and pastoral power operating in and through village spaces, Sivilay villagers still fashion their own particular positionings.

In presenting this material on the making of development subjectivities in Ban Sivilay, I forward that there is no single way in which villagers are affected by, or subsumed within, these forms of governmental power though markets. Certainly, village production systems have long been based around the market, and the sale of resources for cash income (particularly livestock, bamboo shoots, fish, and hand-woven products). Villagers

are certainly capable of spotting new income-earning opportunities,[204] and there is no lack of entrepreneurial capabilities generally in rural Laos, for men or women (e.g. Walker, 1999). Nevertheless such local natural resources represent 'fictitious' commodities, produced from or collected within the surrounding natural village environment. Ban Sivilay livelihoods were never entirely dependent upon a situation of full market-dependence, including with respect to the sale of their own labour. I suggest that the core problem area for the making governable subjects, and the key locus for 'log-frame' intervention by resource firms and the Lao state, involves local adoption and uptake of novel, market-dependent agricultural production systems based on new technologies, and capital intensive inputs—in a context in which villagers are simultaneously experiencing economic stresses and cultural dislocations as local environmental commons are enclosed, and resource-based livelihoods are undermined.

The emergence of a new set of techno-scientific truth regimes are certainly evident in the case of environmental governance in Laos. Historical practices of upland swidden farming and non-capitalised local ecological livelihoods are increasingly placed in opposition to the imperatives of accumulation through extractive resource development, models of smallholder commercial farming and grassroots entrepreneurialism. Local, customary resource management practices and common property systems come to be

[204] To provide just one example amongst many, in the last decade, Sivilay villagers have adopted and mastered the techniques for making covered ground pits to produce commercial wood charcoal for sale, out of local *mai tiew* trees.

viewed as ecologically damaging, overly spatially extensive, and less productive. Through the new truth regimes of nature's capitalization and regional integration, large-scale development projects become viewed as the most appropriate and rational use of resources. Nature is transformed into capital, with revenues funneled to the central Lao state and corporate shareholders, a portion of which are then (theoretically) redistributed back to local populations through poverty reduction programmes. The re-making of Laos as a transnationalised 'environmental state' thus offers one set of solutions and policy prescriptions, towards a set of political questions that relate to the harnessing of nature and resources for national economic development.

Understanding how governmentality works in the Lao context means that we need to adapt the concept from its origin in advanced liberal democracies, to the realities of post-socialist, authoritarian national contexts. Phrases such as 'neoliberalism with Lao characteristics', or Goldman's interpretation of Laos as an "environmental state" still implicitly places the external, neoliberal component of this dyad as dominant, with the 'Lao characteristics' as the secondary or derivative component. In fact, I would suggest that, if considered closely in terms of how external intervention actually functions, the "Lao characteristics" are often dominant in practice. It may also be more productive to break down the scale of the national in these discussions, and focus on neoliberalisation effects of trans-national neoliberal actors, and the production of sub-national neoliberal

spaces, and then to examine how this affects and interacts with the dominant political mode of governance in Laos which, I suggest, is still authoritarian market-socialism.

I interpret governmental power in Laos as working through an idiosyncratic mix of factors and forces, combining (post) socialist authoritarianism and central planning, a paternalist but weak bureaucracy which produces rather erratic governance due to a *de facto* political decentralization, as well as a more recent influence from donor-led neoliberal governance and local participatory development. Contemporary forms of governance and governmentality in the Lao context do not involve a retreat of the state or its confinement to a primarily regulatory function. Rather the example of Laos shows how there is a much greater emphasis on using markets and global investment both to reorganize and *extend* state power (Hadiz and Robison, 2005), into entirely new frontier spaces and realms of population management, through a dominant logic of governmentality through authoritarian market-socialism (Sigley, 2006), which in the case of Laos works heavily through the environment.

Governmentality can indeed offer useful insights into how power functions in the modern state but the manner in which governmental rationalities are forwarded in authoritarian Laos are not identical to how governmentality functions in advanced neoliberal-democratic states. To better understand how governable spaces and subjects are being produced on the ground in rural Laos, an integration of the territorial logics of green

government, the imperatives of authoritarian state control, and a close ethnographic analysis of grounded 'sociologies of rule' (Li, 2007) in actual places and communities, offers a way forward. As Moore (2005) writes of rural Zimbabwe— "formations of power become grounded through historically and spatially sedimented practices." A fuller accounting of the functioning of governmental power can be developed through historically-informed analysis of particular places. In this chapter, I have developed an analysis of what Moore calls the production of *landscapes of rule*, and I examined how company-led socio-environmental mitigation and compensation programs are aimed at the promotion of new, market-based development subjectivities in rural Laos.

A key question is to what extent Sivilay villagers engaging in their own projects of self-disciplining and rule. This involves whether Ban Sivilay villagers accept this new form of power as legitimate, and whether they re-orient themselves according to the new logics of sustainable dispossession, and come to see it as common–sense (Agrawal, 2005). My analysis has highlighted the gaps in the application governmental power, and the ability of villagers to think and act outside of these programmes of rule. Yet, as the story of Mr. G and Ms. B showed, it can also be the case that villager cannot actually participate in, and conform to, the dictates of the company's programs, for many practical livelihood reasons. And in other circumstances, Mr. G has acted autonomously in a way that would conform to governmental prescription. Perhaps the key point is how governmental spaces and subjects becomes an arena through which power is continuously active. Certainly,

just as THPC is expanding their project with the Theun-Hinboun Expansion initiative (which will require outright resettlement of Ban Sivilay to higher ground), and as the operations of Oji Paper continue and develop in this district and village space, new forms of governmental power will exert themselves in and through Ban Sivilay spaces and peoples. It seems likely that the ideology of market-based production and regulated interactions with the environment represents the new framework through which Sivilay villagers will be incentivized— this is what future subjectivies will be established in relation to. Nevertheless, understandings of 'neoliberal' eco-governmentality in Laos need to be much more closely attuned to actual practices, and gaps, through which 'productive' resource and commodity power is applied. The people of Ban Sivilay hold their own creative potential to navigate through these forces of change, and the future is not closed off.

Chapter 7: Conclusion – Grounding Global Resource Commodity Networks

7.0 Introduction

Box 5: *"Land concessions come under scrutiny"*
Vientiane Times, 22 April 2011

"The granting of land leases and concessions for some investment projects is unacceptable, as some projects negatively impact on the environment and livelihoods of local people.
This was the message from President of the National Land Management Authority (NLMA) Kham-ouan Boupha at a meeting held in Vientiane on Thursday.

He said Laos stands to lose more than it gains if concession projects negatively impact on the country's environment.

This includes concession projects in protected and watershed areas, and areas where local people earn a living.
For some projects, land concession fees are as low as US$1 to US$3 per hectare per year, while others are US$4 to US$6 per hectare per year.

Mr. Kham-ouan said the duration of concession projects is often very long, meaning the country does not benefit much.

In addition, the compensation for villagers who lose their land due to such projects is unreasonable.
"I don't think Laos gains from concession projects that cause social and environmental losses," he said."
… However, implementation of these projects causes a lot of problems due to the lack of land surveys and proper land allocation.

The NLMA has sent technical officials to work with local authorities to inspect projects that convert land into capital and land concessions into investment.
[article continues…]

Since my primary period of sustained field research in Laos ended, the scramble into land concessions for plantation and agri-business development has only accelerated. The 2008 global financial crisis, the shift of investment capital into resource commodities, continued economic and industrial manufacturing capacity expansions in China, and new

Greater Mekong Subregion infrastructure upgrades, have all added fuel to the fire of problems with land concessions and rural governance in Laos. Today, such issues with land development and dispossession are being framed in terms of a global land grab. While there are some limitations with this term (it is not a new process)—nevertheless it usefully highlights the global financial market connections and market speculations which are at work, as well as pointing to new sovereignty concerns, with certain nation-states and strategic global companies seeking "locked-in" and secured, long-term access to resources.

The above recent article from the Vientiane Times points to how land management institutions in Laos are attempting to respond to this situation. Indeed, Major General Kham Ouan Boupha[205] points to a number of the key issues highlighted in this dissertation, including problems with: the overlaps of land concessions with community areas (i.e. tenure and property issues); the low rate of land lease fees; issues with long-term, 'locked-in' agreements; constraints with the land zoning and allocation policies; and problems with the system of mitigation and compensation for resource projects.

[205] During the Second Indochina War, Kham-ouan Boupha was the Supreme Commander of the Patriotic Neutralist Forces in Northern Laos. He is reportedly one of the very few non-Lao People's Revolutionary Party members in the upper levels of the Lao state. In addition to his role with the NLMA, Boupha is also a Minister in the Office of the Prime Minister. Boupha has also served in a number of key positions in the post-1975 Lao PDR government, including as a Vice-Minister of Defense, Vice-Minister of Agriculture, Vice-Minister of Industry, and Minister of Justice. In other words, while he is not included in the Politburo or the 61-member Party Central Committee, he is a person of some influence in the Lao Government, and arguably has a history of more independent action.

In more academic phrasing, the problems Boupha points out with plantations and concessions in Laos could be said to relate to the following issues: global resource production networks and firm-state dynamics; the problem of rent-seeking in strategic coupling; the making of production forest space out of national territory; land reform in a developing state context; the political ecology of property rights and rural livelihoods; neoliberalism and the commodification of the environment; and the system of governance in rural areas and communities.

These issues will only escalate over the coming years. Indeed, the actual work of meeting plantation targets for the existing concession contracts in Laos is still only beginning. Some of the companies active in Laos are more attuned to social and environmental concerns than others. For example, while the Sun Paper Company has not released any ESIA studies to date, Stora-Enso's plantation and agro-forestry efforts in Savannakhet has been meeting all Lao regulations and adopting international best practice measures, including the implementation of more advanced *taungya*-like schemes that integrate timber and food production. Some firms operating in Laos are more responsive to eco-social certification initiatives and green consumerism, and are less comfortable operating in opaque, 'frontier' governance contexts. For all regional and global firms however, there will remain powerful incentives to enhance bottom line calculations through various forms of rent-seeking, including accessing land through coercive means, or securing (underpriced) concession areas in countries with forest governance and regulatory

problems, including Laos. The increasingly hegemonic influence of China in the Mekong region will surely add to challenges of promoting sustainable resource development. More avenues need to be developed to engage with China, to promote transparency and advocate for improved corpororate governance on Southeast Asian regional environmental issues.

7.1 Policy Implications of the Dissertation

If a decision-maker such as Kham-Ouan Boupha from the National Land Management Agency was reading this dissertation, he would hope to receive some kind of practical policy advice on how to manage his country's transition into the global economy, while minimizing the negative outcomes for rural people and environments. The application of political ecology research to concrete problems of development policy has also been supported by political ecologists (Blaikie, 2008; Rochealeau, 2008). Research approaches based on the concept of governmentality often have trouble with this issue, due to the ways in which new or refined state policies simply re-work a social and political field of control and subject-making, along a new set of rationalities. One could argue however that some forms of politics are better than others, so here I offer some policy implications.

In Laos, resource company field staff are making quite genuine, and often fairly well-designed efforts, to promote the uptake of new livelihood programs. Some resource companies, and ADB or World Bank supported projects, have developed a degree of

technical expertise with mitigation and compensation that should not be dismissed. In Ban Sivilay, many community members have also engaged in good faith with the Oji Paper and Theun-Hinboun Company development projects. The reality at the time of research, however, was that the mitigation and compensation initiatives implemented in Ban Sivilay were not of sufficient depth, scope, or quality to offset the absolute and relative livelihood declines villagers had experienced as a result of the externalities from extractive resource development. In fact the case of Ban Sivilay highlights the very foreseeable problems that arise in moving semi-subsistence rural communities, with culturally and historically-embedded livelihood practices, into input-intensive, higher productivity, and higher value, commercialised production, in a process in which they have had little substantive input. A first step for resource companies, as a matter of priority, should be to base their land development procedures upon best practice standards that are founded upon the principle of free prior and informed consent (FPIC). Second, companies must fully replace lost or damaged community livelihood assets with equal or greater valued productive assets. Replacing lost swidden agricultural land with a schoolhouse (but with no qualified teacher) or a temple, or impaired wet rice paddy fields with community vegetable gardens and village fund projects, are essentially cosmetic interventions that do not account for lost income earning potential or undermined food security. Companies also need to undertake better baseline social-environmental assessments so that their interventions can be tracked against status quo and pre-project scenarios. There should be a halt placed upon company activities until they have

developed an actual plan to provide required compensation and mitigation as required by Lao law.

Along these lines, it is notable that Forest Stweardship Council certification has not been a major focus for this dissertation. While Oji-LPFL is reported to be interested in pursuing certification standards for their Lao holdings, including FSC, CDM and REDD+, to date there has been little public progress on this issue. Unfortunately this is characteristic of the limited impact of the FSC process to date in improving the standards of governance in Southeast Asian forestry. This dissertation has also shown however how land issues and tenure conflicts are quite central to the process of coercive plantation development in Laos, and this is an issue which could serve as a barrier to certification for most companies and concession operators in the country.

More advanced firms such as the Stora-Enso project in Savannakhet and Salavane, are however basing their activities around FSC standards, and are showing interesting models for taungya-like intercropping arrangements, based upon a well-planned integration of pulp production and upland rice or commercial cash crops. This company has also proposed a systematic land development framework that is consistent with the Participatory Land Use Planning (PLUP) process, and moreover that specifically leaves room for local communities to have a sufficient land base for upland swidden farming on seven year rotations. While there may be some questions regarding how this system will

actually function in practice, there is little doubt that the innovations being piloted by the Stora-Enso Company would represent a significant improvement over the existing practices of almost all other plantation concession projects in the country, and there could be many valuable lessons to be learned from this firm's social and environmental model.

The key policy tool for managing rural land registration in is the Participatory Land Use Planning process. There seem to be many advantages to this system over the previous Land and Forest Allocation system, including enhanced recognition for common property forest-land areas, and an apparent allowance for 'rotational' agricultural production. However, much will depend upon its actual implementation, and more specifically whether the system of registration and titling will be applied to contested areas where 'land grabbing' is actually occurring or imminent, and the extent to which land zoning is truly participatory and based upon the standards of FPIC.

This implies that the national regulators for social and environmental impact assessment (the Water Resources and Environment Agency, the National Land Management Agency, the Ministry of Agriculture and Forestry including the Department of Forest Inspection; and the newly announced Ministry of Natural Resources and the Environment) need to be effective in enforcing Lao regulations. The major donors, the ADB and the World Bank in Laos, have consistently placed the emphasis upon the physical hardware of regional integration in Laos, as opposed to building up the human educational and regulatory

capacity software that would facilitate improved regulation and coordination of investment projects. Coordinating the sequencing of policy reforms, between liberalization of investment and strengthening social, economic, and environmental regulatory capacity, would certainly represent an important area of intervention.

In actual village locations however, projects fail for many reasons. This is because implementing technical programs for village-based development is complex and *difficult.* And this is especially the case when there are multiple resource megaprojects affecting a single community. The corollary however, is that Oji and Theun-Hinboun should have been coordinating the village programs and learning from each other's experiences instead of working in isolation from each other (and often blaming the other company for causing resource degradation). In Ban Sivilay for example, the issue was not simply a technical failure by outside agronomic experts. This occurred, for example with the irrigated corn project, but it is also the case that agricultural markets are competitive and difficult in Laos, especially as Thailand, Vietnam and China, all agricultural superpowers, are located right next door. The livelihood problems in Sivilay village were not simply that the company programs were market–based and villagers had a 'subsistence ethic.' This seem to be an issue with the irrigated vegetable gardens, but in other cases villagers have been keen to engage with the cash economy, including starting up their own smallholder rubber plots without the help of either the government, Oji Paper, or Theun-Hinboun Power Company. Sivilay villagers were not hostile to the company's programs,

yet the same group of villagers (the wealthier and with labour capacity) were always involved in the mitigation and compensation schemes, while the poorest villagers were consistently excluded. 'Village leadership' may have been an issue with the collapse of the irrigated wet rice scheme (as THPC claimed), but this could also have been a result of factional stresses in the community, that were heightened by the de-stabilizing and stressful outcomes of hydropower-induced environmental degradation. Sivilay villagers do believe in local spirits, and this sometimes acted against a more modern, instrumental understanding of cause and effect (for example with the failure to vaccinate livestock despite a THPC program to promote this, which led to the loss of many animals during a livestock epidemic in 2006). However, there is nothing particularly fixed, essential about villager's belief in spirits, and the company certainly could have taken the extra step to try and explain the benefits that could come from livestock inoculation. Many other village problem areas are perhaps simply reflective of the difficulty of making a living in this community. It is true that pioneering farmers will often be the first to participate in new development projects, and some more conservative farmers will sit back and wait to see how it works out before becoming involved. However, in Ban Sivilay, some of the poorest people have also lost their 'courage' to try new things. Their lives were hard, and they were busy trying to scratch out a living through the methods they knew best. My listing of these issues suggests that better 'local knowledge' by company staff could help to identify the specificities of why and how some programs work, and others do not.

There are also some other interesting interpretations offered by residents themselves, which came up in different conversations. In addition to the direct negative outcomes from hydropower and the enclosure effects from plantations, one man suggested that Ban Sivilay was poor because they did not engage in illegal marijuana cultivation in the 1990s, like the Lao villages closer to the Mekong River did. Another suggested that Sivilay farmers were poor because they did not have the start-up capital to start new commercial schemes, like tobacco farming, as another neighbouring village was experimenting with. The village headman noted that people in his village had no involvement with the lucrative patronage networks of the Lao state, and because they did not have any government staff living in their village, and nor did have the knowledge or the confidence to engage with new commercial farming opportunities. These seem like quite reasonable interpretations of the livelihood context in Ban Sivilay as well, although they are somewhat less amenable to policy-based intervention.

7.2 Key Arguments and Conceptual Contributions of the Dissertation

Drawing upon ideas of global production networks, this dissertation has explained how the plantation concessions issue in Laos fits into a broader picture of global restructuring in the forestry and pulp industry. I have shown how national to local institutions and regulatory environments play a key role in how global commodity networks become territorial 'facts on the ground.' My research provides an in-depth local study of the political-ecological interactions of nature's commodification through resource

development, including how the effects of plantation concessions are beginning to interact with other transformative resource sector projects in Laos such as hydropower, and how these ecological changes shape, and are in turn shaped by, community livelihood practices. I have sought to avoid interpreting the case material via an impact model, of 'globalization from above', and instead I have highlighted how different actors, at various scales, convert an economic logic of global resource commodity networks into territorial realities on the ground. I have shown how local communities in rural Laos also respond in creative and at times unexpected ways to these economic and ecological transformations occurring in village spaces. Lastly, I have examined the issue of legitimacy and political power in modern Laos, adopting a set of Foucauldian approaches to the making of governable spaces of resource extraction, and the making of governable community subjects oriented towards the rationalities of market-based production.

Using multi-scaled and historically-informed research approaches, based in economic geography, political ecology and local ethnography, have offered an important set of conceptual advantages. First, I argued that using the framework of global production networks (GPN) opens up conceptual routes for linking how global commodity systems are organized into specific industrial sectors, which in a capitalist system are characterized by competitive interactions and strategies between lead firms. I drew upon the example of the Japanese pulp sector and intra-sectoral competition between two national industry leaders, Oji and Nippon Paper, to explain how crises in profitability, and

domestic restrictions on the consolidation of the industry in Japan, have led to a regionalization and globalization strategy characterized by Oji's entry into the China market for advanced pulp and paper manufacturing, and Oji's development of overseas plantation production platforms, including in Laos.

Second, the GPN commitment to explicitly incorporate firm-state relations and the regulatory aspects of commodity production, provides the opportunity to examine the materialization and institutional regulation of resource networks in national to local contexts. Through the idea of 'strategic coupling' (Coe *et al*. 2004), I have shown how the Lao state has taken a joint venture approach to engaging with foreign direct investments as a development strategy. I also examined how forestry concessions are (semi)-regulated through the Lao land reform policies that, for the first time in the country, are defining state space, village space, and commodity production space. Understanding these firm-based strategies and public-private strategic alliances (Gellert, 2003) helps to locate the organization and drivers of Lao plantation sector GPNs.

Building on the work of Bridge (2008), I show how GPNs become territorially embedded in place, through a close examination of how actual plantation sites become produced in specific locations. Then, moving beyond the concept of the network, I situate how territorialized commodity networks can be understood as interacting with and producing new political ecologies in particular places in rural Laos. I examine how strategic

coupling in the plantation sector is proceeding, and show how Laos has become a targeted supply zone for international pulp and paper companies, due in part to the way in which the country is discursively constructed as a resource frontier, and represented as suitable for large-scale resource projects. From an instrumental perspective, both the idea and reality of the land frontier in Laos presents opportunities to developers and state agencies to re-organize property rights over lands and resources, and to implement large-scale projects which generate resource rents. Although the unstable legal-regulatory dynamics of frontier spaces can pose constraints for long-term capitalist investors, the opportunities for national, regional and indeed transnational firms, to realize extra-normal profits, through enclosure and surplus rent transfer (Lacher, 2005; Harvey, 2007), forms a key basis for a neoliberal 'strategic coupling' in Laos. New rounds of resource sector expansion and commodification, forged out of the intersection between global economic forces, and a weakly governed, authoritarian-developing state, is producing a spatially uneven, patchworked, political ecology of upland development in Laos based around resource concessions.

In turn, through the case study of Ban Sivilay, I show the political-ecological contradictions of turning nature into capital, and local resources (forest-land, rivers) into commodities. In the plantation sector, accumulation also works through the resource itself, through the commodification of fast growing, high yielding (FGHY) eucalyptus and acacia trees. This introduces a specific set of material-ecological transformations, and

affects the social relations of this industry with local communities.

The key *difference* that political ecology makes to the study of global commodity networks is in how it reveals the constraints and opportunities that firms face in relation to the actual territorial establishment and organization of resources schemes in specific countries and localities. It can also call attention to how ecological processes (both held within the resource commodity and the surrounding environments) can facilitate or hinder accumulation. This in turn can inform an understanding of how *value* is created, captured and integrated into the logics of GPNs, and how this affects commodity systems and the spatial architecture of industrial organization.

In turn the key *difference* that GPN analysis can make for political ecology is to show the general processes (of hybrid neoliberalism, globalization, state-backed accumulation) and sectoral rationalities (firm-expansion strategies and other sectoral-specific issues, such as the rise of China as a manufacturing production platform) that drive nature's commodification, and the resulting ecological degradation and social dislocation that can result. This can tell us more about how and why certain resource industries seek to expand in some areas and not in others, and how these rationalities fit into a broader dynamic of global and sectoral economic restructuring.

This regional-territorial approach to linking space with networks (linking 'horizontal',

place-based political ecologies, with 'vertical' firm-based global commodity production frameworks, Neilson and Pritchard, 2010) represents a core conceptual advance presented in this dissertation. What this allows for is a contextualized account of how global commodity networks and their governance structures articulate with specific places and communities, thereby altering the local mosaics of development transitions.

When the above analysis is combined with close ethnographic analysis of the social relations through which this joint political, economic and ecological system is actually, socially accomplished, and legitimated or even re-shaped through social practices in different sites, we have the tools for building an ethnography of global connection (Burawoy, et al. 2000; Hart, 2004; Tsing, 2005). My analysis adopted a spatialized understanding of governmentality, to locate how the combination of resource enclosure and marketization becomes legitimated through the production of governable spaces and subjects. However, I also called attention to 'limits' of neoliberal government power, due to the ways in which development interventions, and mitigation and compensation schemes, can often miss, or fail to enroll, their intended targets. Local farmers in Laos have their own reasons for engaging in markets and commercial production, which are not fully encapsulated through an idea of governmental control of the subject, or through a singular notion of coercive political control through an authoritarian socialist Lao state. That is, I understand rural subjects in Laos as retaining varying degrees of autonomy (which is in part a function of the practical limits of the Lao state to actually implement or

enforce spatialized governizing programs). This raises a broader issue concerning how to understand the functioning of governmentality as a political rationality in developing states, and in illiberal, or hybrid socialist-neoliberal contexts (Sigley, 2006).

In these ways I have sought to outline the contemporary political economy and political ecology of resource development in Laos, and to understand the effects of these dynamics for a specific rural community.

7.3 Conclusion

In the study community of Ban Sivilay, this dissertation has shown how the commodifcation of nature, the enclosure of commons, and accumulation by dispossession has introduced a series of local processes of environmental degradation and impoverishment. I have shown the key global and regional logics in the forestry sector, the 'cold laws of political economy' which are driving this process forward in Laos. Yet, I have also explained how these forces become mediated and re-worked through alternate bureaucratic orientations, and the contingent and uneven capacities of the Lao state. This is producing an uneven resource governance landscape, in which the 'internal' logics of state power and local control in Laos are often dominant. To reduce this collection of interventions and practices to a simple derivative of processes occurring in the West, an example of neoliberal governmentality or even 'neoliberalism with Lao characteristics', is arguably to miss the most crucial and indeed interesting aspects of how national to local

factors strongly influence the making of governable spaces in the country. Instead we might understand how neoliberal influenced global and regional commodity networks, when coupled with the institutions of an authoritarian and paternalist developing state with uneven governance capacities, becomes part of the production and reorganization of territory, nature, and power. While respecting the importance of broad conceptual frameworks, my emphasis has shifted from an abstract theorizing of neoliberal nature, and towards grounding global neoliberal infuenced economic processes in specific places.

I can offer here no new grand theory of how to make 'development work better', nor how to move beyond neoliberal globalization, the hegemony of corporations and development banks, the rule of the expert, or political control by an authoritarian government, which would be better than what existing writers have published. Indeed this dissertation has perhaps added more complexity and local texture to the topic, as opposed to providing a simplified prescription. Perhaps however, by explaining a set of global to local pathways and connections, and by carefully tracing the ways in which an everyday commodity (even something as mundane as a piece of packaging or writing paper) can hold within it such a fascinating story, connecting the reader to gobal firms and financial markets, world trade systems, developing country policy frameworks, and to struggling households and a changing watershed in a far-away place like the Hinboun Valley in rural Laos, we have some tools to start making some changes.

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