A Political Ecology of Oil Palm in the Peruvian Amazon

By

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Abstract

Peru's Amazon region is one of the newest fronts in a growing national and international interest in oil palm production. State legislation and market incentives have accelerated the growth of the industry by promoting large-scale investment and land acquisition. Based on an examination of the opposing discourses of available environmentalist and developmentalist videos and texts, I trace environmental conflict created by the establishment of a large-scale plantation in the Caynarachi-Shanusi Valley, on the San Martin-Loreto border. In addition, while area farmers make up a small fraction of land converted to oil palm, they represent a significant force in the future of oil palm development in the Peruvian Amazon, as the supposed benefactors of development, but also as keepers of diverse cropping systems and forest resources. As such, environmentalist and developmentalist discourses either over-simplify, or ignore smallholder oil palm development. Using ethnographic methods, this study examines the social and environmental perceptions of smallholders, community members, and activists in the region regarding the legacy of oil palm plantation establishment, and the changing economic, social and ecological realities of smallholders, both internal and external to the oil palm economy.

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INTRODUCTION

Amazonia is widely considered the new frontier for investment in oil palm cultivation in Latin America, with more than half of its forest area suitable for production. In Peru, almost 1.5 million hectares of forest have been marked as potential sites of oil palm cultivation, but with little else setting the parameters of development (MINAG, 2001). Mandates for the reduction of carbon emissions originating in the global north, rising oil prices, anti-drug initiatives, and the desire for foreign exchange continue to drive oil palm investment in the Peruvian Amazon. Furthermore, economic incentives such as tax exemptions, and a mandated mix of 5% biodiesel in diesel fuel, legislated since 2011, has meant an established internal market for oil palm cultivation and processing (Ley 28054, SD 02-2007).

Drawbacks to oil palm expansion have been well documented and lie in terms of energy balance, food security, human rights, biodiversity and dubious climate change mitigation; all of which are often trumped by its perceived utility as an engine of economic growth. Many environmentalist and stakeholder groups regard plantation oil palm production as ecologically unsound. This is due to their uniform monoculture arrangement, intensive agricultural input practices, and in many cases, loss of forests for agrofuels and other derived products. Although oil palm development is only one aspect of social and environmental change in the northern Peruvian Amazon, land conversion to agriculture is one of the most important factors driving deforestation (Guigale *et al.*, 2007). More generally, however, the potential effects of national policies and large-scale oil palm agribusiness on long-term forest cover, the well being of

indigenous and non-indigenous forest communities, and the economic welfare of the region are not fully known (White *et al.*, 2005).

Despite concern by community activists and international environmentalists regarding large-scale oil palm enterprise consolidation of land in the region, area smallholders on the border between the Amazonian regions of San Martin and Loreto have continued to plant oil palm and sell their harvests to a nearby processing facility. The question to consider is how this tension is played out on the landscape, and what motivates farmer decisions to participate in the smallholder oil palm economy? This thesis provides a more detailed analysis of how the livelihood strategies and outcomes of rural individuals and communities are transformed by the changes in land use, ownership, and management associated with the switch towards the production of oil palm. This project explores the spatial and social dynamics of environmental change in the upper Peruvian Amazon by focusing on multiple sets of actors within the oil palm assemblage (e.g., growers, protestors, community members), and their perceptions of past events and continued legacies of oil palm development in both large-scale and smallholder forms.

CHAPTER 1: CONTEXTUALIZING OIL PALM IN THE PERUVIAN AMAZON

Historical Background

During the 20th century the exploitation of the Amazon has intensified. During this time the Peruvian Amazon has passed through successive eras of commodity-based economic booms such as: wood, rubber, coffee, maize, cotton, coca and rice. The consequences of these booms have stimulated the immigration of people and agribusiness into the region. A flood of large-scale migration started in the 1960s and 1970s when the Amazon region became more accessible as major highways were opened. This process triggered the expansion and intensification of swidden agriculture systems, as well as intensive agricultural regimes – in many areas beyond the recovery capacity of the native forest system (Arévalo, 2008; White *et al.,* 2005). While a large part of deforestation is attributed to the increase of swidden agriculture in new areas of primary forest, there has also been an increase in the prevalence of large-scale agricultural forms (including pasture for cattle, irrigated rice production, and oil palm monocultures) that are not necessarily adapted to the biophysical and socio-economic environment of the region (Rhodes, 1987; Schmink and Wood, 1987; Arévalo, 2008). The effects of deforestation and intensive monocultures are visible in terms of erosion and land degradation, but also social unrest and economic transformation. Today, many Amazonian families who support themselves by means of small-scale agriculture are experiencing declining access to land, high rates of deforestation, erosion and land degradation, decreasing harvests, declining forest and crop diversity, rapid population growth and other livelihood pressures (Arévalo, 2008; Schmink and Wood, 1987;

Fearnside, 1987). This project provides a review of the growth and implementation of a new extractive commodity boom in the Peruvian Amazon centered on the African oil palm (*Elaeis oleifera*). In order to understand the social and ecological changes that accompany oil palm development in Peru, it is important to look at the Peruvian government's persistent discourse on raising the economic potential of the *selva* region to meet the economic targets of the state.

Peruvian oil palm development in historical and political contexts

The Amazon region covers 60% of Peruvian territory (approximately 78.5 million hectares). The Peruvian state has a long history of attempting to harness the region for its perceived economic potential. Government policies such as: tax breaks, subsidies, agricultural credit and road building have fueled development in this region as part of a national response to economic stagnation and a growing population. During the land reforms of the 1960s, the stage was set for highways, irrigation works, and specific decentralized economic activities aimed at upper and middle class entrepreneurs throughout Peru, but with a special focus on the *selva* (jungle) region. The construction of the *Carretera Fernando Belaunde Terry* in 1968 was one such project aimed at integrating the *selva* into the national economy. Policies were also aimed at indigenous and native non-indigenous residents of the region. In 1969, President Velasco proposed access to modern means of agriculture to the rural poor as a means of poverty alleviation, as well as "converting them into consumers of industrial products" (Alberts, 1983). President Belaunde (1963-1968) viewed the integration of native peoples as a key component in the future economic

success of Peru. He affirmed, "we will build a new Peru … by making citizens and customers of the Indians" (Alberts, 1983).

The role of the state in incorporating the Amazon into national society deviated from the populist ideology (and small-scale land reforms) of the 1960s, and was be rearticulated by the neoliberal reforms of President Alan Garcia in his second term as president. The U.S.-Peru Free Trade Agreement (TLC in Spanish) was signed on December 8, 2005 in Washington by then-Presidents George W. Bush and Alan Garcia, and would promote the use of underutilized lands in the *selva* as goldmines of international investment (Zibechi, 2009). Alan Garcia proposed that 63 million hectares [of the Peruvian Amazon] should *not* be "[delivered in small lots of land] to poor families that do not have a penny to invest", but parceled out into large properties of "5,000, 10,000, or 20,000 hectares, since in less land there is no long-term *formal* investment or *high technology*" (Perez, 2007, *emphasis added*). In effect, the TLC removed a number of protections previously put in place in regard to forested and indigenous lands throughout the Amazon, opening up the land for oil, mineral, and timber exploration. In addition, the move away from land distribution to small-scale producers, to formal capital investment, has also set much of the precedent for the implementation of agrofuel laws and the growth of the industry.

Biofuel legislation

Between 2000 and 2011, a series of agrofuel laws and promotion plans were implemented during the height of global bioenergy investment. The stated objectives of Peruvian agrofuel laws were to: diversify the fuel market, stimulate farming and agribusiness, promote sustainable

development, and offer an alternative market in the fight against drugs in the Amazon region (ProInversion, 2008). In 2003, Peru adopted *Law 28054* to promote a biofuels market at the national level, in line with the government's policy to develop renewable energy resources, and as a strategy for poverty alleviation. A regulatory framework on biofuels was established in 2007 setting a blending mandate for ethanol and biodiesel. The blends stipulate a 7.8% ethanol blend with gasoline starting in 2010, and a 2% biodiesel blend with diesel starting in 2009 to be phased into a 5% biodiesel blend in 2011. It is worth noting that diesel is the most widely used transport fuel in Peru (Quintero, 2012). In just six years, the amount of land devoted to the production of oil palm for biodiesel rose significantly, from 8,864 hectares in 2003 to 18,271 hectares in 2009 (BCRP, 2010: 24), and by 2014 that figure had grown to an estimated 60,000 hectares (with over 600,000 hectares reportedly "cleared", or holding potential, for development) (BCRP, 2010; Ninahuanca, 2014).

Laws that focus on the natural potential of the Amazonian landscape were extremely important in promoting investment in this new economy. According to *Draft Law 9271*, " [the Amazon] has vast and rich lands where the palm oil industry can be developed" and article three of *Law 28054*, "[promotes] the production of biofuels in the jungle, within a program of alternative sustainable development". The *National Oil Palm Promotion Plan* (MINAG, 2000) promoted "clusters" of oil palm in the departments of San Martin and Loreto until the consolidation of 50,000 hectares (124,000 acres) is achieved in the region. In San Martin alone, by 2008, 60,000 hectares were already devoted to oil palm, and roughly 85,000 hectares of agro-businesses and "parks" (i.e. *plantations)* had been awarded to corporate investors, in addition to

100,000 hectares in Loreto (Prolnversion, 2008). The private business numbers for palm development territory reach far beyond the numbers set forth by the *National Oil Palm Promotion Plan* (*i.e.* 50,000 hectares), and continue to rise. This is in part due to the implementation of *Draft Law 1090* (Forestry and Woodland Fauna Law), when 45 million hectares of forested land, or 64% of the forests of Peru, were made accessible to transnational corporations. Another piece of legislation that enticed many companies into the biofuels fold is *Law 28852* (The Promotion of Private Investment in Reforestation and Agro-forestation) in which private investors are given preference in access to "degraded" and deforested land, which has been one of the major components allowing companies to expand agrofuel and other large-scale agricultural enterprises (see Barney, 2007; 2009 for similar forms of enclosure in Lao PDR). The government has repeatedly stated that the production of oilseed crops in deforested lands can be used to produce the feedstock to meet the blending mandate (Quintero, 2012). However, the *Sustainable Loreto Project* (a project of the Center for International Environmental Law and other regional groups) has cited the failure of national and regional development plans to match up – arguing that these planning outcomes often do not coincide – especially for oil palm (Loreto Sostenible, 2013). For example, planning documents may mention "the problem of deforestation, but the same plan [promotes] industrial crops without specifying that this should be carried out on already deforested lands as well as soils with appropriate use capacity" (Loreto Sostenible, 2013: 114). In this way, energy companies have utilized oil palm production laws to gain more land throughout the Amazon region, and regional governments have actively altered land use categories in their municipalities to ensure further large-scale agricultural investment

(Economist, 2009). For instance, PROINVERSION, a government agency committed to promoting private investment, cited the mechanisms governing oil palm development including *Law 28059* (Framework for Promotion of Decentralized Investment) and regulated by *Supreme Decrees 015-2004-PCM* and *013-2007-PCM*, allowing the private sector to develop investment projects based on the State's assets or services, such as idle land (Pure Biofuels, 2008).

These laws are also influencing the extent at which land titles are awarded for investment purposes rather than being awarded as smaller community holdings. As large agribusiness ventures acquire land, they are expanding into vertically integrated processing companies, thus negating the need for small farmer participation. According to Pure Biofuels, a Peruvian biofuel company located in the coastal port city of Callao: "controlling the supply of feedstock is essential to […] long-term growth […] and an ability to respond to changing market conditions" (Pure Biofuels, 2008). Owning their own plantations will allow investors to avoid detrimental fluctuations in international commodity prices and secure a long-term and steady supply of feedstock at a very competitive cost. It can be seen that the agribusiness model for profitable market conditions is changing the dynamics of Amazonian land use and distribution; loss of land and access to natural resources for smallholders is further realized due to the need for companies to control all aspects of production. Indigenous and *mestizo* farmers who continue to utilize mixed cropping methods of agroforestry may find monoculture plantations unfeasible, as the investment in land is substantial. Investments in agrofuels involve the sale of thousands of hectares of land, with the minimum land requirement for a profitable plantation being 5,000 hectares, or 10 hectares for an individual farmer (at a cost of $34,000 annually), while 70 percent

of producers in the Peruvian Amazon, manage less than 5 hectares of land apiece (Palmas del Espino S.A. 2008; ProInversion 2008; Guigale 2007). According to the statistics of investment in palm oil, an investment of US $ 2,000 to US $ 3,000 per-hectare is estimated for agricultural production (Pure Biofuels, 2008). This implies a change in livelihood for farmers from primarily subsistence agriculture and cash cropping – to wage labor, or a push of small subsistence migrants further into the forest. Despite the possible limitations, small-scale oil palm growers are an increasingly important factor in land-cover change, especially in San Martin, which has an established smallholder oil palm sector. Fieldwork has indicated that oil palm is increasingly utilized as an addition to perennial crop production along with cacao (while corn, rice, and other annual crops are discarded or reduced). With regards to the impact of this transition on forests, researchers using remote sensing data have shown that while the "expansion of high-yield oil palm [in this context, referring to large-scale plantations] converted less total [forest] area – *more forest was cleared* than with low-yield [*i.e.,* smallholder] expansion" (Gutierrez-Velez *et al.*, 2011; Gibbs *et al*., 2012). Furthermore, "smaller-scale plantations tended to expand into already cleared areas while industrial-scale plantations traded their greater yields for forests, leading to higher land-clearing carbon emissions per production unit" (Gibbs *et al.,* 2012). This finding fits with what was observed in the field; with small-scale growers developing oil palm stands on previously cropped lands, while continuing to value their remaining forested areas. However, the shift in production from food to industrial commodities – even as the natural resource being produced continues to be used as a "food" product – has important implications for the continued existence of small-scale farmer livelihoods and agrobiodiversity in Amazonia.

The study area

Locating the San Martin-Loreto border region

This project focuses on the border region between the departments of San Martin and Loreto, in Peru's northern *montaña* (generally including the tropical Andean foothills and lowland forests, from 130-2000 meters above sea level). These territories encompass diverse bioregions, from the highland jungles of the Andean foothills (*selva alta*), to the lowland jungle (*selva baja*). The forests in this tropical Andean region, in the western section of the Amazon, contain some of the most biodiverse habitats in the world (Arévalo, 2008).

Social and economic life in the region follows the fluvial imprint of the Huallaga river valley, with easy access to transport provided by the *Carretera Fernando Belaunde Terry* (or *Carretera Marginal de la Selva),* which snakes through the mountains of the *Cordillera Escalera Protected Area* as it rises from the metropolis of Tarapoto City and then descends into the Amazon basin, terminating at the port city of Yurimaguas. The main study area is situated between these urban hubs, off the central highway, following the Caynarachi and Shanusi river valleys, which flow from the uplands of San Martin, emptying into the Huallaga in the flat Amazonian plain. Oil palm plantations occupy large portions of the landscape along this 70 km stretch of the *Carretera Marginal,* reaching from the lowland city of *Pongo de Cainarachi*, at the foot of the *Cordillera Escalera*, to Yurimaguas. The municipality of Barranquita lies at an intersection between these urban centers, along an unpaved, pot-holed, and often muddy or washed out, road that parallels the Caynarachi River. As the largest community adjacent to a large-scale plantation engaged in oil palm production, and a nexus of local resistance to

advancing large-scale production, this small cattle town will be the central focus of the study.

Transportation Development: IIRSA Norte, Marginal Highway, and Puerto Yurimaguas

When discussing the Caynarachi-Shanusi valley, of critical importance is the Marginal Highway, which is administered and financed by *IIRSA Norte,* a multibillion-dollar multinational initiative to connect all regions of the South American continent. This regional system, part of the "Northern Highway", was established in 1967 and was conceived as a road from the coast, penetrating into the Amazon region, which would "more or less follow the ancient trails," descending the Mayo Valley to the high jungle city of Tarapoto and "swinging thence in a northerly direction to Yurimaguas" (Sandemen, 1945: 90). The construction of the Northern Highway resulted in a rapid increase in the rate of migration to this region of the Upper Amazon, and due to land reforms in the 1960s and promotion of the *selva alta* as the new Peruvian breadbasket, the region began to provide an outlet for the thousands of landless highland peasants, supply foodstuffs to a growing coastal urban markets, and contributed its resources to national development (Sandemen, 1945).

The oil palm boom has its own close ties to the development of inter-Amazonian connectivity. Pure Biofuels (2008) cited "an ambitious plan of concessions" involving "Peru-Brazil corridors, ports, airports and telecommunication infrastructure oriented to increase agricultural land usage and efficiency in sierra and Amazon regions". Not only will the highway attract further migration into the jungle as routes become better established, but forestry and logging concessions continue to rise along the Marginal Highway. Oil palm has closely followed

the bisecting highway as a critical line to processing facilities and shipment to internal and external markets. An integral component of the promotion of oil palm in Peru has been to strengthen infrastructure, specifically around the "productive nucleuses of oil palm" (MINAG, 2000). In fact, the paving of the Marginal Highway in 2006 directly resulted in Grupo Romero's decision to install oil palm in the zone (Odebrecht Perú, 2010). This potential will only increase further as the newly planned international port in Yurimaguas – the current end point of the highway – connects international trade with the farthest reaches of the Atlantic Amazon, southern Peruvian jungles and coastal ports. By creating better logistical access to the Huallaga waterway, by way of the *IIRSA Norte* project and Yurimaguas Port, international connections and integration of Peruvian coast, sierra, and jungle will increase into the future. The highway currently joins Yurimaguas with the coast, and in theory, with the completion of a high capacity port, markets in Brazil and beyond. While facilities are currently limited, the upgrading of the port in Yurimaguas and continued road improvements will certainly bring further national and global integration in the future, and make land along the Marginal Highway a continued high value asset, and inevitably a site of change and conflict.

Small farmers in the Caynarachi-Shanusi Valley

Most of the inhabitants of the Caynarachi Valley are people of mixed indigenous and *mestizo* origin, and have lived in the area for several generations. The native *mestizo* inhabitants can be compared to *ribereños* in the Peruvian lowlands (or *caboclos* in the Brazilian Amazon). This category of farmers is distinct from indigenous peoples (mostly of Kechwa-Lamista and Shawi

descent) whose communities dot the area, and from the increasing wave of recently immigrated colonists (mostly Andean peoples).

Approximately 52 percent of the population in the department of San Martin works in the agricultural sector and is the most important source of income. San Martin and Loreto have both been widely affected by different extractive booms such as rubber, coca, coffee, and rice; and all have been implemented in monoculture fields with high demand for water, fertilizer, and pesticides. In places with lower infrastructure, although inhabitants are connected to the commodities market, they continue to practice commodity and subsistence agroforestry with little to no monocropping (Schjellerup 1999). In the lowland municipality of Barranquita, located at the confluence of the *Caynarachi* and *Yanayaku* rivers in the department of San Martin, 90 percent of residents are involved in agriculture; with principle crops including rice, maize, coffee, tobacco, cotton, cacao, and the oil palms used in the production of edible oil and biodiesel. Of the population that is engaged in oil palm production, around 250 families are involved in cooperative association INDUPALSA, which was established and continues to be actively involved in an alternative development program, promoted by the Peruvian anti-drug initiative DEVIDA (*Comisión Nacional para el Desarollo y Vida sin Drogas*) and the UN Office on Drugs and Crime (UNODC), with funding from USAID, English, German and Austrian governments.

The research objectives and questions

The objectives of the study were to: (1) conduct a survey of smallholders and community members representing different levels of involvement in the oil palm assemblage in order to understand socio-ecological opinions and outlooks related to oil palm cultivation in the San Martin and Loreto border region at a local scale; and (2) carry out an exploration of the legacy and continued importance of video and social media in local environmental politics (this objective relied on contacting regional parochial and environmental activists involved in the creation of environmental videos and workshops, and that acts as one of the only active projects countering the broader development narrative promoted by the state and regional business interests).

Initial research questions for the project were broad, but generally focused on understanding economic and ecological transformations perceived by smallholders in the region. Some of these questions were directed towards participants directly, while others were obtainable through more general observations. The first set of questions aimed at identifying how oil palm development promoted drivers of deforestation and land use change, including: What are the environmental and land use consequences and legacies of community level participation in the oil palm economy? A second set of questions targeted the supposed communities, or groups of individuals, in vocal opposition to oil palm development, and in what ways livelihood needs, environmental concerns, or both, inform their choices. How are people in opposition to plantations changing land use practices? How do communities mobilize to confront environmental transformation and conflict? How are the residues of environmental conflict seen

in new forms (new electronic and social media, environmentalism)? Finally, questions regarding immigration, conflict with colonists, and land tenure rights were proposed and offered to informants for comment. These questions were posed based on analysis of videos documenting environmental and land rights issues produced by protestors.

Primary Research Questions

- What are the environmental and land use consequences of community level participation in the oil palm economy?
- How are people in opposition to plantations changing land use practices?
- Does documented environmental and social conflict due to large-scale plantation establishment in the Caynarachi-Shanusi Valley adequately represent current realities of "traditional" and oil palm smallholders?
- What are the changing economic, social and ecological realities of smallholders, both internal and external to the oil palm economy?

Study design and methods

Smallholder interviews and participant observation

In the summer (June-July) of 2014, field data were collected in the Caynarachi Valley and the port city of Yurimaguas, in the Peruvian departments of San Martin and Loreto, respectively. These data included tape-recorded interviews, semi-structured surveys, and informal conversations as well as field observations recorded in a field journal in order to understand continued livelihood transitions and land-use choices in the Caynarachi-Shanusi Valley.

The survey was developed following Lozano (2013), and was used to collect broad demographic and economic data on participants. The survey was also chosen for the similarities

in research focus; Lozano's survey was conducted near my own study site, asked questions key to my own research, and was already written in Spanish. Sections of the original survey not pertaining to my study were omitted, while new questions (*e.g.*, concerning oil palm production) were added. The survey was used as an initial form of data collection, with questions often transitioning into informal interviews. Additionally, if the participant was a farmer, a landscape walk of the participant's land was undertaken to solicit information regarding land-use practices and environmental perceptions.

Human subjects approval was obtained for this research through the University of Kansas Institutional Review Board compliance process. All participants in the field were read a human subject consent protocol in Spanish (their native language), and were given a permanent copy of the protocol to read and keep for their records. Contact information was provided if a follow-up with the researcher was desired. Participants responded with a verbal "yes" if they consented to the interview process. Although not explicitly part of the consent process, informants were given pseudonyms throughout the text in order to protect their identities further from any possible harm accompanying this research project.

Discourse Analysis

Discourse analysis is an interdisciplinary approach to textual study that aims to analyze linguistic and semiotic details in light of the larger social and political contexts in which those texts circulate. This usually involves focusing on forms of power that are often opaque as well as more transparent structural relationships of dominance, discrimination, power and control. Discourse,

as used in this paper, is the articulation of knowledge and power, of statements and visibilities, of the visible and the expressible: "the process through which social reality inevitably comes into being" (Escobar 1996: 326).

Waitt (2010) explains that Foucault's definitions of discourse cohere around the production and circulation of knowledge. The interest is in how "particular knowledge systems convince people about what exists in the world (*meanings*) and determine what they say (*attitudes*) and do (*practices*)" (Waitt 2010: 218). The central question to ask, is how are these discourses "illustrative of the [textual / video] producer's understanding of the world" (Waitt 2010: 225)? These perspectives are at once informed by previous forms of knowledge, meaning and practice, and in turn inform the current and future debate on the issue. The analysis of such formations of knowledge and practice is what has come to be known as Foucauldian discourse analysis. A discourse contains a corpus of expressions in which we can find homogeneity in message as well as in expressive means. Homogeneity in message implies that the expressions share certain knowledge and perception of the phenomenon in question, and there may also be shared beliefs concerning causes of problems and appropriate response. This corpus comprises the "truth system" that is born from sets of discursive devices (Adger *et al.,* 2001).

However, discourse is not a representation of some externally existing reality – that is, it is not a "representationalist tool" – but refers to what constrains and enables what is said and done (Apffel-Marglin, 2012: 58). A discourse is a specific, collective series of representations, practices, and performances through which meanings give the world its particular shapes – their forms and norms (Gregory, 2001). Discourse does not restrict or distort knowledge but generates,

encodes and arranges it in diverse forms and locations. The production of this knowledge can take many forms. Discourses have their own rules and protocols about what can properly be regarded as knowledge, or in other words "grounded", or "encased in apparatuses such as books and journals, in instruments and equipment, in interactions and procedures – which are produced and reproduced through interlocking networks of individuals and institutions, and their physicality, materiality, and durability help to naturalize particular ways of being in and acting in the world" (Gregory, 2001: 86). Foucault understood discourses to be grounded within social networks in which groups are empowered and disempowered relative to one another. He saw discourse as subtle forms of social control and power. One effect of discourse is the privileging of relatively powerful social groups. That is, particular voices and technologies are favored over others, often counted as sources of "truthful" or "factual" knowledge, while other voices may be excluded and silenced (Waitt, 2010). Finally, in a *critical discourse analysis*, the researcher also takes into account textual silences, implications, ambiguities, and other covert but powerful aspects of discourse (Huckin, 2012).

Video Analysis

The content analysis was conducted using protest videos and advertisements related to oil palm from the video-sharing website *YouTube* (www.youtube.com). Videos were converted into video files using a third-party site and downloaded for future off-line analysis. Video content was documented by transcribing select video dialog; taking note of location, participants and general message conveyed in the video. Video title and description, view count, and viewer comments

were also collected for analysis.

While considerable attention is paid to content analysis in discourse methodologies, this paper forgoes direct systematic classification, largely due to a small sample size. Instead, the videos are used as a frame with which to view opposing discourses as a broad form of environmental communication. Videos were distributed into two broad categories for analysis: *environmentalist* and *developmentalist*. These categories are not meant create a strict binary representation of representation, but were based on distinct instances of video production related to oil palm development in San Martin-Loreto border region. As Rose emphasizes, acts of communication such as videos are *designed,* because "each one must be tailored by a reflexive, communicating agent to the specific context in which that communication is taking place: the contest includes the communicator's interest, their understanding of their audience, the resources they have, and the mode of dissemination they will deploy" (Kress, 2010: 26, cited in Rose, 2013: 38). However, while relying on separate categories, this analysis also assumes video *intertextuality*, or the assumption that meanings are produced as a series of relationships between texts rather than residing within the text itself (Waitt, 2010). This intertextual method can help us understand the ways that factions of environmental and pro-development discourses are strung together between videos with differing locations, sets of actors, and production qualities. Further analysis was drawn from additional videos and interviews during the time period; all of which can be placed within either of the two categories.

Organization of Chapters

The next chapter outlines the theoretical and conceptual framework of a political ecology of oil palm development in the Peruvian Amazon. Chapter 3 provides a discourse analysis of textual and video sources that have shaped much of the research agenda. Chapter 4 outlines a case study of oil palm development through the perspectives of multiple actors in the oil palm assemblage, focusing on forms of smallholder production and socio-environmental outlook. Chapter 5 sums up the thesis objectives and arguments, discusses results, and concludes with a discussion on the study's contribution to the merging of political ecology and land use science frameworks, and the implications for the continued integration of these two modes of study and analysis.

CHAPTER 2: TOWARDS A POLITICAL ECOLOGY OF OIL PALM

This project is an attempt to bridge the frameworks of political ecology (PE) with that of land change science (LCS) (Brannstrom & Vadjunec, 2014). While much of PE found its renaissance in the late 1980s through the 1990s, the importance of these concepts continues to have implications for theory and practice today. On the one hand, with the rise of social/actor-network theory, hybridity and postmodernism in human geography, political ecology has the ability to ground these often abstract theories into practice and put them to work in a real world context. This is also true in the realm of more physical/quantitative frameworks – often considered the domain of land change science (LCS). The open framework of political ecology has the ability to tie measurable environmental processes to their terrestrial lived (social) components (Turner & Robbins, 2008). This project also draws considerably from research in political ecology, in that it attempts to be ethnographically informed while contributing to an "understanding of the relationship between the media, environmental discourses, and environmental politics" (Brosius, 1999: 286). As such, this chapter constitutes an important exercise for examining the construction of environmental discourse, as well as the obstruction of other voices in the production of new environmental and economic spaces of oil palm development in the Peruvian Amazon

Many geographers and anthropologists have attempted to string together the genealogies of PE and LCS; therefore this section does not attempt to reproduce what others have done (Bryant, 1992; Greenburg & Park, 1994; Paulson, 2003; Rubenstein, 2004). There have also been

a number of authors, from various disciplines, who have attempted to formulate a distinct theorization of political ecology in the Amazon region (Schmink & Wood, 1987; Chibnik, 1994; Little, 2001; Rubenstein, 2004; Brown & Purcell, 2005; Hvalkof, 2006). Instead I want to provide a short synthesis of anthropological and geographic conceptions of a poststructuralist political ecology, and its usefulness in the study of oil palm in the Peruvian Amazon, by tracing it through several of its theoretical underpinnings. Further attention will be given to the spatial and social impacts of bioenergy production, the use of *territoriality* when dealing with large-scale land conversion, and an exploration of the ways that discourse plays into environmental consciousness at multiple scales. Finally, this review will tie together the ways that PE and LCS can be integrated for a more thorough study.

Poststructural Political Ecology

This research relies on a framework of poststructural political ecology (P/PE). As such, this section provides a brief genealogy and general definition of what P/PE is, and its central components. It will also explain what is gained by adding the "poststructural" tag to the framework, namely: the use of discourse analysis and acknowledging the power laden ways societies de/construct notions of nature, and the implications for studying human-environment interactions.

The earliest incarnations of PE involved a fusion of anthropological cultural/human ecology and political economy (see Biersack, 1999; Paulson *et al.*, 2003; and Rubenstein, 2004 for definitions from Geography and Anthropology). It is commonly acknowledged that PE "has

no settled paradigms" (Biersack, 1999: 15). However, there are key universal components to the framework within human geography. Schmink and Wood (1987: 38) define PE as the study of "the relationship between the natural environment and socioeconomic behavior." More specifically, they examine the clash between socioeconomic systems at different scales and their effect on the environment, with an eye towards addressing environmental policy issues, especially in terms of class conflict (Rubenstein, 2004). Bryant (1992) argues that this fragmented framework offers the most nuanced view, focusing on relationships between access rights, local struggle and ecological transformation. Greenburg and Park (1994: 2) define PE as "the relationship between productive activity, human character, and the environment."

However, this research project favors the definition offered by Little (2001: 4): defining PE as "focusing upon the occupation of and struggle over geographical space as well as the definition of, rights to, and use of the resources contained by this space and the biophysical effects of that use". Additionally, with a distinct focus on cultural-ecological processes, this project "expands ecological concepts to respond to [the] inclusion of cultural and political activity within an analysis of ecosystems that are significantly but not always entirely socially constructed" (Greenburg & Park, 1994: 1). The focus on social construction within the framework of PE is useful for "drawing connections between social and ecological change; the environment and social justice; global and local change; as well as the construction of dominant views of 'nature' or 'the environment'" (Goldman, 2011:6). Braun and Wainwright (2001: 41) incorporate these ideas in their definition, focusing on the "power relations and political-economic processes mediating knowledge about, and access to, natural resources", along with

the understanding that "the very thing that is taken to be the object of environmental studies and politics – namely, 'nature' – is an effect of power." With a long transition from a strict focus on political economy and adaptive ecological systems into the theoretical underpinning of poststructuralist ideas, the following section will briefly dive into how PE has evolved to incorporate the changing notions of power/knowledge and nature/culture.

Poststructuralism

Poststructural political ecology (P/PE) is often identified as a separate branch of PE (Paulson, 2003; Rocheleau, 2008). Others, however, prefer a more nuanced interpretation – building on previous works to incorporate new theoretical insights with older tested concepts (Escobar, 1999; Rubenstein, 2004). P/PE has been termed as contingent on the "cultural turn" in Geography that emphasizes "multiple identities, situated knowledge, the positionality of multiple actors, and complexity and contingency in social and ecological relations of power" (Rocheleau, 2008). By equating political ecology's mission with poststructuralism, Rubenstein (2004) advanced a movement that rejects structuralism, with ambivalence towards the Enlightenment projects of progress and "grand-narratives" of Western thought (Rubenstein, 2004: 34) – a theme that runs throughout most critical development literature (Peet & Hartwick, 2009).

Works in poststructuralist geography are primarily concerned with deconstructing notions of "nature" (Rubenstein, 2004; Demeritt, 1998). Scholars interested in "antiessentialist" concepts of Nature see the socialness of nature in multifaceted ways. Escobar explains, "nature is always constructed by our meaning-giving and discursive processes, so that what we perceive as natural

is also cultural and social; said differently, nature is simultaneously real, collective, and discursive – fact, power, and discourse" (1999: 2). This idea has led to a focus on critiquing knowledge and power, and on the "global circulation of knowledge and its impact on local society-environment relations (Goldman, 2011: 8).

Poststructuralism also asks: "who has the social power to draw the boundary between a center and margin," which has implications for socio-environmental relations as well as the construction of dichotomies such as nature/culture (Dixon & Jones, 2004:83)? In recognizing categorizations as the product of social relations of power, attention turns to which social groups have the discursive resources to construct categories; that is, "who has the ability to name the world" (Dixon and Jones, 2004: 84)? Therefore, this discursive view reaches beyond text and has biophysical implications for peoples and places in terms of *territoriality*, and the constructed meanings of place (see below for a definition of *territoriality*) (Sack, 1986).

Vayda and Walters argue that some political ecologists do not deal adequately with the influence of politics in effecting environmental change but rather deal only with the politics "albeit politics somehow related to the environment" (1999: 168). While this critique is important for future debate within the field of PE, the critique may miss the point. Vayda and Walters in their call for a more ecologically focused PE seem to fall back onto the separation of humans from their "natural" environment. However, the problem lies in the very reasons for political struggles: their, often messy, entanglements in the natural world. Escobar (1999: 4) explains that P/PE is concerned with what needs to be done in order to find "new ways of weaving together the biophysical, the cultural, and the technoeconomic" for the production of

other multiple types of social natures. This has implications, especially when viewing the conflict between the technologically intensive form of monoculture oil palm, and the opposing view of biodiversity conservation and continuing subsistence forms of forest livelihood.

The spatial and social impacts of agrofuel development

This project relies on the assumption that agrofuels (a term used to identify first generation [*e.g.,* agriculturally produced] feedstock as distinct from second generation [a number of non-agricultural] bioenergy feedstocks), is of primary interest in studying land conflict in the Caynarachi-Shanusi Valley. The government and business discourse behind the promotion of oil palm development is often expressed in terms of its use as an alternative fuel source. This discourse often relies on ideas of energy independence, emissions reductions, reforestation and economic development in regions plagued by intense immigration and illicit coca cultivation. However, the drawbacks to agrofuel production often lead to social conflict over land, such as the enclosure of land for commodity production. In reality, biofuel production may not be the key issue behind social conflict and oil palm in Peruvian Amazonia (the products manufactured are varied). However, due to the discourse surrounding agro-development that relies on notions of alternative energy production, it seems necessary to explore some of the theoretical and empirical literature on the role of agrofuels, and the way they can transform local lives and landscapes.

The first issue that needs to be addressed is that of the changing meaning of land as it passes through, what Paulson *et al.* (2003) call, a process of *marginalization*. A core concept in

PE, *marginality*, is a process in which political, economic, and ecological expressions may be mutually reinforcing: "land degradation is both a result and a cause of social marginalization" (Blaikie & Brookfield, 1987: 23; cited in Paulson *et al.*, 2003). A common trope in development literature highlights the ways that governments will often re-categorize landscapes to fit the needs of economic policy (White & Dasgupta, 2010; Escobar, 1999). The general development view is that land of "marginal" agricultural productivity is cheap, and therefore attractive for conversion into biofuel plantations (Van der Horst & Vermeylen, 2010). However, this land is rarely uninhabited or unused by the people who live on it. A government's definition of "degraded" or "waste" land is often informed by the land's previous productive regime, or by the current absence of agricultural systems that produce commodities for the world market (Van der Horst & Vermeylen, 2010; Barney, 2007; 2009). This issue is especially acute in the Amazon region, since most small-scale agriculture is practiced using a mixture of swidden-fallow agroforestry with small-scale tree plantation intercropping (3-15 hectares, based on research), which after a decline in production, may require long periods of regeneration before becoming viable again. Even if the land is continually forested, land purchases can be cheap for companies investing in land classified as "degraded" since revenue can be generated from logging, or because previous users or occupants have no formal title (Van der Horst & Vermeylen, 2010). Therefore, as different land covers are reimagined, "marginal" lands are created, at times further marginalizing the previous occupants and those at the periphery of the reclassified land.

In addition, Van der Horst and Vermeylen (2010) point out the spatial implications of agrofuel production in that bioenergy demand is created through state intervention (targets, tax

breaks, *etc*.) in the countries of consumption, while most of the social impacts take place at the place of production. In the Peruvian case, the demand is driven both by external demand, but also by state targets of foreign investment, energy independence, and coca eradication (MINAG, 2000; ProInversion, 2008). It is worth noting that the company that owns the plantation involved in this study is a Peruvian conglomerate, largely producing for domestic consumption, both for biodiesel as well as food and industrial products. However, the point of this section has been to highlight the local-global linkages of bioenergy that can have impacts at multiple spatial scales.

Territoriality and Capitalist Nature

Any conversation about a place starts with the need to construct a frame around the space that is to be bounded. A theoretical starting point to talk about the constructing and bounding of space is the notion of *territoriality*. This concept, as defined by Sack (1986: 216), is "the device through which people construct and maintain spatial organizations", and which acts as a "complex strategy to affect, influence, and control access to people, things, and relationships". This definition binds together the physical (natural) world with the social spaces that are actively defined and embedded into human social relations. Below is a brief discussion of territoriality and how space is filled with meaning, as well as the way power and politics works its way into the classification and development of certain places.

A central aspect of Sack's work on territory is his assertion that "territoriality serves as a device to keep space *emptiable* and *fillable*" (Sack, 1986: 38, emphasis added). This, at first reading, seems to be a strictly materialist perspective on the role of the modern capitalist

economy in bounding spaces – especially when Sack states that, "societies make this place-clearing function [emptying and filling] explicit and permanent in the concept of property rights in land" (Sack, 1986: 33). Furthering this argument, economic and historical processes drive the process of territory making as "science, technology, and capitalism make practical the idea of repeatedly and efficiently 'filling' and 'emptying' and moving things about within territories of all scales" (Sack, 1986: 37). The idea of emptiable space is important in a materialist sense, but it is also driven by an important underlying factor – that space can be emptied of, or filled with, *meaning*, and that this function has the ability to promote or obscure sources of power. Therefore, territoriality is simply (or complexly) the way in which "a place is made, or a space cleared and maintained, for things to exist" (1986: 33). This is a way for boundaries to be made material while clearing a space for dominant forms of meaning to exist (whether political, economic, or ecological).

This process ultimately lends itself to what Escobar (1997: 200) referred to as the "capitalization of nature", in which the commoditization of nature is mediated by the state, and indeed, places the State as the "interface between capital and nature, human beings, and space". The mobility of territory, within and throughout space, and its ability to be emptied is a highly problematic process. Both Sack and Escobar argue that Capitalism's territorializing process helps turn places into commodities. Trees produced on plantations can be taken as an exemplar of this process of capitalization, which requires a "scientific and administrative conquest of most domains of economic and social life specific to modernity" and regulates conservation and development throughout the globe (Escobar, 1997: 200). When examining development

narratives, Escobar has pointed out that power and meaning directed towards sustainability and conservation in capitalist forms have produced new forms of capital, which call for the "incorporation of nature as capital, even if calling for the sustainable use of resources" (Escobar, 1997: 199). In the cyclical refilling of space, "previously uncapitalized aspects of nature and society become themselves, internal to capital" (Escobar, 1997: 199). For example, the specialization of scientific knowledge about nature, and the "sustainable" use of natural resources for the worldwide fight against global warming (seen as a global battle to be fought by scientists and sustainability specialists) – but also for profits – in the world market are examples of an "ecological" shift in capital. In this way, we can view the territorialization of plantations as the "the study of manifold constructions of nature in contexts of power" (Hvalkof & Escobar, 1998: 426).

In addition to the lines above focusing on the problematic effects of capitalist territoriality, the ability of space to be empty and filled may also be an opening to account for alterity and *relational* ways of being (Massey, 2004). Speaking from a place of local specificity, with an eye on global connections, the anthropologist Hugh Raffles' asserts: "places are never stable, and *space is never empty*" (2002: 183, emphasis added). Lines of demarcation may be tenuous, permeable, and easily dismantled and reconstituted, but they nonetheless "confer a kind of fixity" (Raffles, 2002: 183). As both Sack and Raffles would argue, places seem to need boundaries and to make sense in terms of "insides and outsides", "even if we have trouble knowing exactly where they are at any given moment" (Raffles, 2002: 182; see Sack, 2001). What this means is that while spaces may be deemed emptiable and fillable for the capitalist

economy, this function in reality is far more complex when localized social processes are included, especially the lived experiences of people participating in, or caught in the midst of, large-scale development efforts. As the anthropologist Aletta Biersack explains:

> "Trans-local places are relational, and involve complex articulations tying humans and non-humans across time and space. To the extent that nature presents itself to humans as so much raw material to fashion, space is no longer a container, field, or ground that holds, engulfs, or supports other things but is itself a contingent product, a sediment of human practice, a construction in the material and not merely semantic sense of that word-in short, an *artifact*" (1999, emphasis added).

This excerpt touches on the many tensions at work when we talk about open space, pristine nature, and the nature/culture binary that drives such thinking. It points out that our world involves multiple connections between human and non-human worlds, connections that leave residues and *artifacts* that we should view as challenges to our attempts to separate nature and culture. This framework is useful for analyzing an "ecology of practice", that focuses on "local social relationships and regional socio-cultural patterns as basic determinants of resource management practices, and, consequently, the processes of ecological change occurring both now and in the past" (Nyerges & Green, 2000: 273-74).

Finally, I find Little's (2001: 2) work highlighting different "cosmologies" (indigenous, extractive, missionary, *etc.*), to explain the ways territories of meaning can overlap, very instructive. These cosmologies not only account for how different Amazonian peoples view the world, but also the ways in which different waves of colonial, state and economic expansion have brought "new desires, knowledge systems, technologies, and forms of social organization" into Amazonia. Cosmography is a concept that can be used to describe "ethnographically the

process of establishing human territories" (Little, 2001: 5). For instance, the relative "boom" in oil palm production could be placed within the cosmology of neoliberal economics, and the continuation of Amazonian extractive development; but perhaps even a cosmology of coca – with the politics of eradication, corruption, and close connections to continuing conflict with the remnants of armed rebel groups as the key arguments in the production of oil palm (Dean, 2013; Kernaghan, 2009; MINAG, 2001; ProInversion, 2008).

The above section has tried to provide an overview of ways that we enact territory, as a general theory to help us "see the earth's surface as a spatial framework in which events are contingently and temporally located" (Sack, 1986: 48). It also serves to show how territory can be seen as a construction from a variety of interpretations. These interpretations are especially important when talking about conflicts over land rights, and the enclosure of territory for large-scale development projects.

Discourses of resistance and development

Another task for political ecology is to analyze spatially distributed fields of power, without privileging the perspective of one agent (or position) in this field (for example, by reifying any particular hierarchy) (Rubenstein, 2004). For that reason, this study attempts to frame multiple actors within a field of possibilities. We are viewing a conflict over resources, but different actors situate themselves within this assemblage as similarly or differently as they see fit. This means the research must attempt to look at all of the variously positioned actors. Therefore, there is no privileging the potency of a global biofuel economy or national conglomerate (although

they certainly exist, and exert force), but a nuanced view of the variety of actors and positions that were created with the onset of this commodity boom. Also important to keep in mind is that we live "in a world interconnected by increasingly efficient communication and transportation technologies, yet situated within and reliant upon specific geophysical locations" (Paulson *et al.,* 2003: 206). This is important in order to situate global processes locally, but also to examine the potential for individuals, especially those in previously marginalized locations, to "jump scales" to have their voices heard in regional-international contexts (Smith, 1993; Massey, 2004).

The scales that have been used to bring attention to the issue of land transformation and territorial rights in the Caynarachi-Shanusi Valley have been varied, and change according to distinct individual and group perspective. For example, aircraft and aerial photography by early activists was a way to highlight ecological damage from a vantage point not normally afforded to poor Amazonian farmers embroiled in land disputes (Rojas, 2010; Radio Oriente, 2010). It was also liberating given the fact that plantation gates, security guards, and dense tree cover tend to hinder visual inspection from ground level. Second, satellite remote sensing imagery of plantation extent and deforestation brought about a new kind of urgency. With these "high technologies" the extent of the forest damage can be presented on a larger scale and visualized with numbers and figures that have the capability of influencing policy. This data was compiled by scientists and academics, and worked to validate the claims of community activists at different levels. It is worth noting that some authors (Escobar, 1999; Zimmerer & Bassett, 2003; Rocheleau, 2008) have critiqued the use of satellite surveillance, remote sensing and GIS as highly power laden processes with the potential to reify social constructions of nature. However,

in the case of highlighting socio-ecological transformation in the Caynarachi-Shanusi Valley these techniques have actively promoted non-governmental oversight that might not otherwise have occurred. Historical work on social and material dimensions of resource management has provided important precedents for critical studies of "maps as tools of power, and for applied studies using maps as power-tools of resistance and self-determination" (Rocheleau, 2008: 724).

During my research on oil palm conflict in Peru, I have been consistently drawn to videos posted to *YouTube* as a source of understanding what has occurred and continues to take place in the San Martin-Loreto border region (Rojas, 2010; Radio Oriente, 2010). Many of these videos were conceived as forms of protest in opposition to the actions of plantation agribusiness. However, also of interest are the various advertisements commissioned by the agribusiness plantation (in all its changing subsidiary forms) to represent itself as an environmentally conscious, anti-poverty, development-oriented company. These videos, combined together, are documents of physical change as well as a conversation about what is occurring discursively in terms of economic benefits, land use and human rights. Waitt (2010) explains that Foucault's definitions of discourse cohere around the production and circulation of knowledge. The interest is "in how particular knowledge systems convince people about what exists in the world (meanings) and determine what they say (attitudes) and do (practices)" (Waitt 2010: 218). The central question to ask, is how are these discourses "illustrative of the [textual / video] producer's understanding of the world" (Waitt, 2010: 225)?

Discourse analysis in the setting of upper Amazonia involves asking: "what counts as 'the environment'" in Amazonia, especially in a "given political negotiation, corporate strategy,

research initiative, livelihood trajectory, or policy program" (Tsing, 2001: 4; cited in Paulson *et al.*, 2003)? We can also use discourse analysis as defined by PE, which draws from scholars who approach politics more broadly as "power relations that pervade all human interactions, characterized by challenge and negation, and infused with symbolic and discursive meaning" (Paulson 2003: 209). It should also be noted that what both industry advertisements and "protest" videos fail to take into account are the small-scale producers that are actively involved in oil palm production. This may be due to their inability to fit into categories of high investment opportunity, in one reading, or their perceived anti-environmental action, on another. This middle space is of key importance to this study. As such, the electronic and textual sources outlined above will be addressed using Foucauldian discourse theory, with an eye to the politics of scale, while also asking who is missing from the story (Massey, 2004; Brown & Purcell, 2005). In this way, for example, we can see how international discourse on "green" energy and state-led economic development can weaves its way through *ribereño* life which has the power to loop back through state, industry and global environmental actors; all contributing to local productions of space and place in the Peruvian Amazon.

Political Ecology and Land Change Science: complementary research agendas

A study that focuses on oil palm development in Peruvian Amazonia must be sensitive to uneven political and economic power relations between plantations and local communities while also focusing on the different ways plantation and smallholder agricultures differently affect forest cover and broadly defined ecosystem services. Therefore, a linkage between LCS and PE is

critical for this study. However, there is some tension between the frameworks that need to be examined before a synthesis can be done. Practitioners of LCS and PE adopt fairly different stances when addressing very similar research issues, specifically human-environment interactions (Turner & Robbins, 2008; Brannstrom &Vadjunec, 2014). These differences are often viewed in terms of divergence in subject and focus, but with considerable overlap in outcomes (Turner & Robbins, 2008). Lestrelin *et al.* (2013: 50) explain the difference between LCS and PE practitioners on the subject of forest-cover transition (one of many overlapping research agendas):

> Land change scientists adopt a somewhat neutral perspective focusing mainly on the identification, weighing, and modeling of the conditions and drivers of forest-cover change. Political ecologists put forward a more critical view of the observed forest transitions, emphasizing the continuing degradation of natural forest and unraveling the political and economic strategies, environmental narrative, and power struggles that underlie forest conservation and afforestation.

This highlights what Turner and Robbins (2008) argue is the significant difference between LCS and PE, namely their problem framing and, in many cases, their analytical approaches. The research issues expressed by LCS are synthesized from a "formal, international research agenda" (Turner & Robbins, 2008: 299). PE is often expressed as a bottom-up research endeavor, having no formal agenda, but with a number of major works guiding the range of questions pursued by practitioners. PE may attend to material environmental processes but directs attention to their role in land-use and social change-the human subsystem – rather than to Earth-subsystem dynamics (which LCS claims as its focus) (Turner & Robbins, 2008). LCS developed to address land dynamics as foundation of global environment change research. This

approach treats land as a coupled human-environment (or social ecological) system and addresses its change implications through the integration of the natural, social and geographic information sciences, including remote sensing. PE, on the other hand, addresses a range of human-environment problems beyond land change, although it utilizes a common approach to tie local problems to global systems (Turner & Robbins, 2008). As such, there is a considerable degree of overlap and room for integration between the two frameworks.

LCS is viewed as "largely land-centric" (Brannstrom & Vadjunec, 2014: 4), while some have argued that many PE practitioners focus on socio-political influences more and leave out important ecological aspects (Vayda & Walters, 1999; Walker, 2005). However, an argument could be made that the latter assumption neglects the highly politicized nature that surrounds human-environment interactions, and assumes that we can study the natural world without taking into account political factors. While many PE studies focus a great deal of attention on the political implications of, and leading up to, environmental change, this does not necessarily indicate a neglect of ecological factors. For example, Paulson *et al.* (2003: 210) argue that "studies that document erosion and those that analyze tenure policies are both political in nature, insofar as they use categories and questions grounded in certain vision and interest, and that they are both ecological, insofar as they seek to understand the interrelationships between organisms and their environment".

Another key divergence between LCS and PE often lies in terms of scale. As a framework largely focused on rural-activist agendas at the local-scale, it has been pointed out that PE's preference in giving control over resources to local communities to combat wider

political-economic inequalities can be misguided, and assumes *a priori* privileging of the local scale, which may not always be the most sustainable solution (Vayda & Walters, 1999; Brown & Purcell, 2005). In response, there is a growing interest in PE in using (actor) network theory to explore actors and processes at multiple scales of analysis. Paulson *et al.* (2003: 2010) recognize that political ecologists often fail to explore how the environment is negotiated and affected through actions in multiple arenas "such as the household, the workplace, the community, and the state". Integrating these scales with the broader flows of commodities, goods, capital and policies is a key component of integrating LCS and PE.

Integration in Amazonia

Turner and Robbins (2008) argue that the difference between LCS and PE lies in terms of their focus of study (scale) and methodology. While LCS seeks to tease out statistical relationships and construct models focusing on a particular research question in land dynamics, PE is focused on a single or multiple-site, in-depth comparison for interpretive analysis. A critique of LCS in this case might ask: what kinds of land dynamics can be teased out of a broadly defined problem of national, or even pan-Amazonian, oil palm development? Especially if every plantation company has differing network linkages; every community differing eco-political and economic viewpoints, and different regional-local actors (*e.g.,* government ministries, NGOs) involved in promotion or resistance. Can this be adequately quantified by a geographically scaled-up analysis of oil palm as a land-use category? In the same manner, while PE strives for an activist accounting of the way power and capitalist accumulation play out in local land dynamics, how

can the framework achieve practical outcomes if practitioners cannot scale up their research to other regions, with their own situated cultures and communities; even if sharing similar political-economic and climatic conditions? While it is understood that neither of these approaches can "do it all" (see Kull, 2013), some form of synthesis seems preferable, if not necessary, in order to combine divergent frameworks to solve similar problems.

That being said, Brannstrom and Vadjunec (2014) point out that the study of biofuels is highly suited to an integrated LCS-PE approach. Biofuels produce energy for certain groups – consumers and firms – at the expense of certain resource users while benefiting from particular relations with state authorities. Biofuels are also territorialized at the expense of alternative land uses and land covers, and the fuel products are distributed according to historically and geographically contingent power relations (Brannstrom & Vadjunec, 2014).

This particular study of oil palm in the Cainarachi Valley may be more skewed towards a PE focus given the data at hand, and the perceived factors that have led to the environmental conflict. However, looking at issues of land categorization by the state can be viewed not only through a P/PE approach, but also as a LCS problem that can be answered using cross-framework methods, such as remote sensing. Lestrelin *et al.* (2013) point out that a potential synergy between LCS and PE may lie in terms of a more critical approach to land classification as a socio-political construct. They contend that approaches to land-use and land-cover change could be "more sensitive to the genealogy of land classifications and the relationships between land classes, actors, and their political-economic and territorial agendas" (Lestrelin *et al.,* 2013: 61). The outcome would be to "unravel and map power relations within and across different

national contests", making apparent the broad socio-political drivers (a key tenant in LCS) and implications of land-use and forest transition (Lestrelin *et al.,* 2013: 61). Lestrelin *et al.* (2013) also call for a focus on the *actors* of deforestation and reforestation and their configuration and placement in the flows of commodities, capital, and information – "traditional" subjects of inquiry for LCS.

This research is well situated to address aspects of both frameworks and offer future research questions that may highlight one or the other research agenda. For example, a land-use map using information from field-collected land-use categories, and local small-scale farmer interviews may be merged to produce a broader thesis of how land users in a larger regional context are using forest resources, now and in the future. This could direct the focus of forest transition to other areas of study in the context of other non-indigenous native Amazonian peoples. Similarly, the review of environmental videos focusing on community rights to water resources peripheral to oil palm plantations could be used as a platform by which to launch a larger study on the ecohydrologic changes brought about by tropical forest plantations and how this affects the hydrology and ecosystem function of human communities and landscapes. These are just a few of the possibilities of an integrated LCS-PE science.

CHAPTER 3: DISCOURSES OF ENVIRONMENT AND DEVELOPMENT

This chapter sifts through the environmental discourses of oil palm development in the Caynarachi and Shanusi river valleys, providing a case study of social and ecological impacts of oil palm development in the region by examining the environmental discourses from the distinct typologies of what I term: *environmentalist* and *developmentalist* groups. These typologies focus on the opposing views of regional protest movements and plantation agribusiness interests through the mid-2000s and into the present day, while also incorporating the ways government biofuel legislation has promoted the establishment of agricultural plantations in Peruvian Amazonia. The objective is to highlight categories of socio-environmental transformation, the groups involved, and what, if any, policy considerations have addressed these changes.

The Circulation of Images: Reading opposing discourses of land-use and nature

During my initial research on the conflict taking place in the Caynarachi-Shanusi Valley, beginning as an undergraduate in 2010, I had been consistently (and continue to be) drawn to videos posted on the video-sharing site *YouTube* as a source of understanding what has occurred and continues to take place in the San Martin-Loreto border region (*e.g.* Rojas, 2010; Radio Oriente, 2010). Before conducting fieldwork, these videos comprised some of the richest texts with which to view the opposing voices on land rights and environmental conflict in the region. They continue to be important as an analytical tool with which to compare interviews and field data.

The use of industry video commercials, interviews, and print media can be viewed as

descriptive of how government, business and alternative development practitioners view development and nature in Amazonia. In addition, amateur protestor videos provide an example of grassroots opposition to exactly the kind of images displayed by industry advertisements – by presenting a very different view of how plantations are formed, and their deleterious effects on communities and the environment. These videos provide an example of what Brosius (1999) has described as the "circulation of images" in environmental discourse; where environmental conflict is often characterized by the "mobilizations and the counter-mobilizations" of opposing groups. Today these conflicts are as much about "images of the environment as they are about the environment itself" (Brosius, 1999: 285). That is to say, environmentalism as it is practiced in distinct localities, such as Peruvian Amazonia, is thoroughly enmeshed in the global circulation of images, especially through the increased availability of cheap visual technologies, the Internet and easily distributed forms of media such as file and video sharing sites. This chapter argues that both factions in the conflict over oil palm development rely on local-global networks for constructing environmental and developmental discourses of the local socio-ecological effects of an internationally traded commodity. Both parties engage in new languages and relations of global environmental governance, management, and activism, which lead to narratives and counter-narratives, that construct and constrain possibilities for local self-determination (Adger *et al.,* 2001). This chapter takes the work of Adger *et al.* (2001) as the basis for identifying the three main elements of discourse analysis specifically centered on a global environmental discourse. 1) The analysis of regularities in expressions to identify discourses; or, what is most often being said in terms of the topic; 2) analysis of the actors

producing, reproducing and transforming discourses – who is saying what; and 3) social impacts and policy outcomes of discourse.

Additionally, this analytical framework seeks to understand and interpret local experience in the context of global processes of environmental and economic change (Rocheleau *et al.*, 1996). As such, the central textual sources include environmental and community activist videos, corporate video and print advertising, as well as government documents and legislation concerning biofuel crop promotion (an initial driver of oil palm plantation establishment and smallholder participation) to tease out the differing construction of nature in the Peruvian Amazon, as differently situated stakeholders attempt to control access to, and use of, land and economic space. Into all of these issues we can wrap up the questions of oil palm in the Caynarachi-Shanusi valley by asking: what counts as "the environment" in Amazonia, especially in a "given political negotiation, corporate strategy, research initiative, livelihood trajectory, or policy program" (Tsing, 2001: 4; cited in Paulson *et al.* 2003)?

Finally, those subscribing to a poststructuralist theory center on concepts of language and meaning, and take as its object of study discourse, representation, and the power-knowledge framework. It takes more seriously the agency of "local communities", but takes into account all knowledge producers (including individuals, states, and NGOs) and a multiplicity of discourses. It seriously considers the "changing practices of knowing and doing, alternative modernities and decolonial projects and how knowledge producers resist, adapt, subvert dominant knowledge and create their own" (Escobar 2008: 173). However, while most poststructuralists analyze "development" as a discourse of Western origin that operates as an overarching mechanism for

the cultural, social, and economic production of the "Third World", this research, pulling from Escobar (2008) takes seriously the problems that arise when development is treated as an object of discourse that disavows the subjectivity, or desires, of people. As such, this project aims to find the alternative and unspoken possibilities present within the oil palm assemblage. In this way, we can see how international discourse on "green" energy and state led economic development can weave its way through *ribereño* life which has the power to loop back through state, industry and global environmental actors; all contributing to local productions of space and place in the Peruvian Amazon.

Content analysis: categorizing territory and nature

Analyzing the discourse from a multitude of incongruous sources can be a challenge, especially in relation to a contentious issue such as land rights and the environment. Backhouse *et al.* (2013) point out that local land conflicts in Latin America are frequently marked by confrontation between seemingly "irreconcilable rationalities, discourses, political strategies and legal frameworks." In their study of agro-industries in Brazil and Colombia, they distinguished between two key discourses promoted by opposing sectors. My own work in Peru has found parallels with their typologies: First, that priority is often given to economic development and a need to make land "productive" by making it available to agribusiness, mining, transportation infrastructure sectors. Second, and inversely, there is the need by local peoples for the re-conversion of land into "cultural territories" in order to conserve some "traditional" way of life (Backhouse *et al.,* 2013). I see similarities between their sectors and my own *environmentalist*

and *developmentalist* typologies. The juxtaposition of these two typological "collections" provides our base for a discourse analysis of oil palm development in this region of the Peruvian Amazon.

Typologies

Environmentalist

The videos termed *environmentalist* range in visual and audio clarity, from high quality and professionally produced, to rough digital video-recorder footage with poor audio quality. Videos in this category are often posted by more than one user, and under different user names. However, many of these videos share the same informants, geographic sites, and social-environmental themes. The protest videos are primarily concerned with issues of deforestation, water access, pollution, and land acquisition by the nearby agribusiness plantation. By far, the most viewed video collection is *Barranquita Resiste* (see Radio Oriente, 2010; Rojas, 2010). These videos consist of airplane-captured video of plantation establishment and associated deforestation, while others document field walks near communities whose water access has been affected by logging and plantation activities. These videos were largely produced by local parish activists, and distributed by the Yurimaguas-based parochial radio station *Radio Oriente* (http://www.roriente.org/), and associated activists during the height of protests from 2007-2010.

Protest videos encompass a larger environmental discourse, where access to territory and natural resources are the most important factors impacting daily life. As opposed to *developmentalist* discourses, these sources rarely cite development in economic terms, but in

terms of environmental services and access. On the rare occasion when social services are mentioned, they are couched in terms of something that can only come from access to territorial rights. For instance, in an interview, a former lieutenant mayor offered up the contrasting situations between Barranquita and neighboring communities that border the plantation, saying: "at least we have water, electricity, and peace … other communities don't have these things, and don't even have secure access to their land" (La Ley de la Selva, 2008).

Developmentalist

The typology I term *developmentalist*, consists of business presentations, and government documents promoting agrofuels and oil palm agroindustry, as well as professionally produced commercials commissioned for Palmas del Shanusi, and posted to *YouTube* in 2013 (with no further information about production, formal distribution or intended audience). These videos have individually clear, common themes, including: health, education, employment, and corporate responsibility for the environment. The commercials present an unproblematic view of oil palm in terms of forest and community health, and contrast with environmentalist videos. The "commercials" are intended to promote oil palm development - largely in line with the original biofuel and alternative development laws that provided the establishment of large-scale oil palm growth - as a source of economic prosperity, but also to repair the image of Grupo Romero after protests brought international attention, and ire, to the company's social, environmental and suspect business practices (El Comercio, 2013; SERVINDI, 2010).

Constructing Territory: Categories of forests and land use in the Peruvian Amazon

In terms of oil palm development, Amazonian territory has been constructed in several ways. First, biofuel legislation, like other large-scale investment plans, further reinforces the categorization of land as degraded, or in need of regeneration. One of the arguments used by most proponents of agrofuels is the existence of large areas of available land, lands that have been abandoned, or are deemed unproductive, which are commonly referred to as "marginal". However, the concept of marginal lands is a highly discursive category for what are often expansive and biophysically diverse spaces. Lestrelin *et al.* (2013) points out that it is critical to approach land classification as a socio-political construct, contending that approaches to land-use and land-cover change could be "more sensitive to the genealogy of land classifications and the relationships between land classes, actors, and their political-economic and territorial agendas" (Lestrelin *et al.* 2013: 61).

In 2000, the *National Palm Promotion Plan* set goals for the establishment of oil palm in Peru's Amazon region by declaring that installations of oil palm plantations were of national interest. It was also assumed that this plan would promoted sustainable and economic development of the Amazon region by contributing to the recovery of deforested land that had been used for shifting cultivation and illicit activities (MINAG, 2000). Through this framework the National Institute of Natural Resources (INRENA) was tasked with determining the locations of deforested areas with potential for the development of oil palm plantations. Following this logic, Loreto and San Martin were estimated to possess 770,000 hectares combined, of degraded land suitable for palm cultivation. However, this figure has been questioned due to a lack of clear

information on how these entities define forests and their agricultural or development potential (El Comercio, 2013). In addition, a multinational NGO report exposed the lack of adequate suitability measures for oil palm establishment, citing: "there is nothing that comes close to organized information on plantations and deforestation in Peru," adding that "the Ministry of Agriculture has not identified the areas deforested for the installation of agro-energy crops nor is there a map indicating which places are most suitable for planting oil palm" (Loreto Sostenible, 2013; IDL Reporteros, 2013).

A second construction of territory relies on poorly defined categorizations of forested lands, whose loose definitions often leave them open to interpretation. In an *Environmental Investigation Agency* (EIA) report, Urrunaga (2013) cautioned that the use of flawed interpretations of *bosques producción permanente* (BPP, or permanent production forests) has left an estimated twenty million hectares of Peruvian forest at risk of being deforested. Similarly, forestry concessions for logging and reforestation are considered of public interest, and a national priority, particularly on forested land without forest cover and protection or uncultivated lands (OSINFOR, 2013). These forested lands, which have gone through some kind of degradation or deforestation process, can be categorized as agricultural land under Peruvian law (Urrunaga, 2013). Similar reclassification occurred in the Caynarachi-Shanusi Valley, where land was reclassified from BPP to agricultural land by a regional government resolution without any form of environmental impact assessment (RM 255-2007-AG; SPDE, 2013). This forested area was then cleared, and planted to oil palm using legal permits, in spite of the Forestry and Wildlife Law [27308], which states that forest resources cannot be used for agricultural purposes

or other activities that affect vegetation, sustainable use, and conservation of forest resources (Urrunaga, 2013). The Forestry and Wildlife Law, No. 27308, in effect since 2000, does not contain a specific definition of what forest legally refers to (Velarde *et al.*, 2010). Furthermore, afforestation and reforestation contracts granted under the previous legislation were controversially discussed in Peru, as grants were given over areas considered primary forests. Also, the possibility given for timber harvesting of existing species had opened access to those interested in extracting the resource, and not necessarily in reforestation. This issue has two key aspects: (1) there is no clear definition of forest and (2) there is not a registry of deforested or degraded areas, and rights are granted without further verification of information in the field (Velarde *et al*., 2010). The argument is that loose definitions, or recatgeorization, open the doors for anyone to cut down forests for agricultural development, without any criteria of sustainability. As such, the current system of land classification lends itself to various interpretations without adequate environmental policy (see Dammert, 2012).

This lack of clear guidelines led to the conflict in the Caynarachi-Shanusi Valley. In 2005 the *Corporación Comercial del Amazonas S.A.*, a subsidiary of Group Romero, presented the regional government of Loreto with a planned agro-industrial project, *Palmas del Shanusi*, with the intent to produce oil palm and install a palm fruit processing plant near Yurimaguas. The company requested 10,000 hectares in the Shanusi Valley in the province of Alto Amazonas (Loreto) through the Legislative Decree 653 *Ley de promoción de inversiones en el Sector Agrario*. The Ministry of Agriculture (MINAG), through Resolution No. 0664-2006 –AG, awarded *Agropecuaria Shanusi S.A.* (also a subsidiary of Grupo Romero) 7,029.35 hectares in

July of 2006, for the amount of S/. 126,528.29 *nuevo soles*, or about $7 USD per hectare (Burneo, 2011).

By the end of 2006 Grupo Romero had obtained 7,000 hectares through land concession from the state, in addition to 1,829 hectares purchased from individuals for the Palmas del Shanusi project (Loreto), as well as 3,000 hectares for its Palmas del Oriente project (San Martin) (Burneo, 2011). In addition, the planned Palmas de Caynarachi installation (San Martin) would add a further 6,129 hectares. In total, Grupo Romero had accumulated almost 18,000 hectares of land slated for the production of oil palm in the Caynarachi-Shanusi Valley. This, in addition to the company's established plantations in southern San Martin, amounted to a total of 23,829 hectares (Burneo, 2011). In response, the area acquired by Grupo Romero for their Palmas de Caynarachi project was occupied by 200-300 families, representing 7 communities, including: Leoncio Prado, San Fernando, Nuevo Barranquita, Sangamayoc, San Juan de Pacchilla, and Nuevo Ica. Residents denounced the deforestation of 2,000 of the 3,000 hectares acquired by the company. The community response to these large land purchases was cited by some as the "proximo *Baguazo*" (the next Bagua); comparing the simmering tension and threat of protests in the Caynarachi and Shanusi Valleys to the still fresh events in Bagua, in which indigenous peoples called for prior consent to large-scale development projects, and that laid the blame of conflict on the liberal land policies of the Garcia government (Info Region, 2010).

The social movement that sprung up as a mouthpiece for affected and concerned residents, *La Mesa de Concertación de Lucha Contra la Pobreza de Barranquita* (Lamas, San Martin) claimed that part of the 7,000 hectares that the Peruvian State had sold to Grupo Romero

in Loreto was already owned by community smallholders – including 60 families of the Quechua-Lamista community San Juan de Pacchilla whose land had been officially titled by COFOPRI (*el Organismo de Formalización de la Propiedad Informal*). Due to sustained local pressure and international support, in April 2010, Grupo Romero formally renounced their 6,129-hectare Palmas de Caynarachi project through the Regional Directorate of Agriculture in San Martin (DRASAM), noting that the decision was based on improving community relations and coexistence. However, it has been pointed out that the land the Romero Group relinquished was already pending adjudication before the regional government of San Martin over the invalid change in land-use designation by DRASAM (SPDE, 2013; Burneo, 2011).

These recategorizations also hinder legal avenues to local territorial rights in the wake of oil palm development. The communities waiting years for their claim to collective title found themselves on the front lines of deforestation for the Palmas del Shanusi project (SPDE, 2013). By virtue of being within a predetermined polygon of land, communities in titling processes already bogged down by bureaucracy are often left with nothing. In the Caynarachi-Shanusi Valley, environmental damage was directly related to tenuous land tenure in the region. Awareness and apathy to this reoccurring theme was seen in the comments section of one protest video, in which a user laments:

> "Political boundaries don't protect anything, individual title gives no legal certainty, what must be done is to fight for recognition of Native Communities" (Radio Oriente, 2010: User comment).

Interesting here is the realization that current forms of territorial control by individuals and by the State apparently fail to adequately "protect" peoples and forests, while recognizing

Native Communities would give more weight. This process fits into a larger battle of indigenous and local communities, for example those Kichwa-Lamista communities that without prior consultation were left within the boundaries of the *Cordillera Escalera* protected area. It may be the case that an expanded form of territorial rights to the most marginal would set a precedent for all land ownership in the region.

The categorization of deforested land often fits into a crisis narrative within much Amazonian politics, which views smallholders as permanently degrading the Amazon. However, smallholder extraction may not lead inevitably to the permanent degradation of the land and continued impoverishment of residents. It has been pointed out that traditional extraction regimes such as swidden systems are considerably less demanding on forest succession and regrowth than other, more intensive regimes such as the conversion of forest land to intensive soybean and oil palm cultivation, which not only represent long-term and profound degradation of diversity and ecological services, but also the conversion of land from traditional and local control (Robbins, 2012). In the Peruvian context, de la Cadena (2010) has pointed out that the liberal Peruvian state is unable to see an alternative formation of nature-society relations beyond a developmentalist paradigm, and in turn "dismisses local place, abstracts it, and legally reterritorializes it (e.g., by declaring it "empty" or "unproductive" space) to make room for the economic benefits it would potentially generate". In other words, Robbins (2012: 136) explains, "categorical and taxonomic information provides the building blocks for a political ecology of landscape production and control", in which meaning is often produced by governments and economic interest, but from a local point of view, the fact that a natural resource is not being

used to produce an economic benefit for the global market, does not mean they have a great ecological value and to the local populations. For instance:

> "Indigenous communities have a different vision of development that is not precisely like those of the [State]", the desire is to "maintain a condition of harmony with the environment, their vision is not to be the cultivators of large monocultures ... A great part of the Amazon is territory, titled or not, it is territory of Amazonian peoples (José Alvarez, International Forum on the Implication of Oil Palm in Peru).

This recognition of alternative ways of valuing nature, is the focus of the next section.

What counts as Nature? Natural resources and the right to life

Another contentious issue in the oil palm discourse is related to notions of environment, and what is deemed important in terms of natural resources. For *protest* videos, user comments largely supported a discourse of biodiversity at risk. For instance, one user offered a lamentation and a call of support:

> "Our primary forests have a great value for the biodiversity they support, the environmental services that they provide (production of oxygen, regulation of water, etc.), and the support of the people living there. How can it be that today companies are allowed to destroy such an important resource? *We unite to support our environment*!" (Radio Oriente, 2009: User comment).

One of the most common, and perhaps important themes running through protestor videos is the importance of environmental services at risk from agroindustrial projects. For example, during my interviews in Barranquita, one farmer remarked that access to water is "one of the most important things in nature", and that easy access was essential for farmers' livelihoods. Water is thought of as a generally abundant resource in the Amazon, but access to it is often a site of contestation. A segment of *Barranquita Resiste* videos are dedicated to field

walks, led by Jander, a local environmental activist, in which community members “demand rights to water” as the “right to life” (Rojas, 2010). In these videos, residents of Leoncio Prado, near Barranquita, accuse Grupo Romero (and their Palmas del Oriente project) of diverting the flow of streams, drying up several watersheds and appropriating a nearby lake, which supplied them with drinking water, due to increased logging and forest clearing. Water continues to be a central divide between plantation and community. Contamination of water by agrochemicals, fertilizers, insecticides and herbicides from oil palm runoff are serious potential issues (Dammert, 2012: 46). Due to these concerns, Palmas del Shanusi claims in one of their commercials to be recycling irrigation runoff, in accordance with best environmental practices (Palmas del Shanusi, 2013). However, in November of 2014 FREDESAA alleged that Palmas del Shanusi, had contaminated the *Ushpayacu* and *Yanayacu* streams, and asked the government to investigate and sanction the company (EIA, 2015).

In the same videos citing water rights, community members lament the loss of access to forest resource, either by forced removal, or the indiscriminant logging of important forest species to make way for oil palm. One video shows activists and community members near a freshly cut stump and pile of logged wood, as Jander explains: "These are virgin forests. [Grupo Romero] are destroying primary forest and nature" ... Jander pulls bark from a felled tree stump and points out that the tree was *chuchuhuasi*, “a medicine for the population, for the peasants of this area”. When asked what message she had for the authorities, she responds, “they are destroying our forests ... I feel so sad, they have destroyed our forest" (Rojas, 2010).

The loss of forest, in turn, extends to a loss of biodiversity. One lawmaker remarked that, in palm plantations, “they say there exists two species: Man and Palm.” If palm oil plantations supplant the area, it will only contain two strata of vegetation (kudzu and oil palms) instead of the many strata of a tropical rainforest (EIA, 2015). Questioning what counts as nature also encompasses the question of how nature can change. During an interview with my friend Luis in his family’s *chacra* (swidden garden) he pointed out that an important global issue is the warming of climate, and yet thousands of hectares of forests continued to be burned for the planting of crops. I had seen the importance of a changing climate in the decisions of smallholders, as well as how it plays into the larger resistance to agroindustry in a video *Our Daily Oil Palm* (2012), commissioned by the German NGO Rainforest Rescue. In the short film, a smallholder explains that:

> “Before the plantations there was good, fresh air. Not anymore. Now everything is hot. I have another piece of land ... 15 hectares of virgin land. I don't touch it. But here [among the oil palms] the climate has changed".

Issues of territory cannot be discussed without focusing on the meaning ascribed to what is within a territory. In April of 2013, Eduardo Nayap, an indigenous congressman from the Amazonas region, sponsored a forum on the “Implications of Oil Palm in Peru”, where legislature and business advocates could openly discuss the current expansion of oil palm in the Peruvian Amazon. Also speaking at this meeting, José Alvarez, General Director of Biological Diversity with the Ministry of Agriculture explained the ways local, indigenous views should not be antithetical to a national Peruvian agenda:

> "Our primary forests are sacred, they are not sacred only because indigenous peoples value them ... They say that spirits live within them, that the forests are their pharmacy, their supermarket ... They are also sacred for Peru because they protect us from the dramatic events of climate change"

In this way, protestor demands questioned what was really important about nature, which was later utilized in the rhetoric of environmentalist at the government level. While one can question the way Peruvian national identity needed to be separated from indigenous viewpoint of resource use, the very use of this rhetoric is proof of its performative power.

Oil Palm Development: Processes of social inclusion, or othering?

While this analysis focuses on only two categories of videos, also important in the larger discourse is the role of national and international media accounts of oil palm development and protest. For instance, an important question raised by Brosius (1999) is that of "zones of inclusion and exclusion within a 'geo-body', or national citizenry". When we tie this with issues of land use we must ask to what extent are government decisions about the placement of such environmentally dubious, yet economically and politically critical enterprises such as dams, mines, plantations, and timber concessions premised on assumptions about communities that exist in those areas (Brosius, 1999: 285)? This has a lot to do with national imagination about citizenship, identity and the environment when dealing with complex ecological issues.

An apparent fit of imagination occurred in an interview with a general manager of Grupo Romero's oil palm operations where the TV news host mistakenly placed the locations of plantations established since the early 80's in the illicit drug fueled region of Huánuco, instead of San Martin. While this may just be the geographic blunder of an on-the-spot television host, the

mistake is an indication of the lack of local understanding that the national imaginary continues to have in the Amazon region. This imagination often works itself into the discourse of developmentalist language. For example, one video commenter expressed a rather different opinion to the ones being featured among comments on a popular protest video, suggesting that:

> "Those lands [where the plantation was established] were already deforested. The company has brought formal employment, taxes for the region and a higher quality of life for those chunchos [lowland natives, savages]" (Barranquita Resiste 4, 2010: User comment)

This opinion couches development in terms of an economic, social and environmentally necessary process. The comment claims that the forests were "already deforested", which satellite imagery tells us is not true (see El Comercio, 2013). The commenter also sees the company providing formal employment, income from taxes and a higher quality of life for local inhabitants. While these are desirable outcomes, it expresses this desire via racist terminology. The inhabitants whose lives would be improved through formal employment and living quality are, according to the commenter, viewed in the racially charged term *chunchos*. This is a derogatory term used to identify indigenous, or in this case, backwards people. Andrés Bedoya Ugarteche, in an inflammatory opinion piece in *Diario Correo* shortly after the events in Bagua in 2009, in which he blamed indigenous peoples' for the violence, defined *chunchos* as an adjective describing the "wild Indian living in the Amazon forest"; the archetype of "pre-agricultural, ignorant, primitive ferocity; incited by communists and crooks" (Ugarteche, 2009, *my translation*). I mention this only to point out a nascent racism that has the ability to be directed discursively towards issues of lowland politics, self-determination and "environmentalism", when viewed in opposition to economic investment and development.

Similar language was used by Alan Garcia in an Op-Ed to the nation, in which he proposed that "the smallholder model without technology is a vicious cycle of misery", and that the nation should "respect the virgin forests and natives, but that we should start with the 8 million hectares that have been converted to desert and destroyed in the past years by migrant concessions, coca and savage logging", where, he pondered, "you can generate a million jobs and work on the production of furniture" (Garcia, 2007).

The developmentalist discourse, whether commercials or industry interviews rely on a distinct rhetoric separate from protester concerns. Advertisements promote the idea of ample jobs produced by the activities of the plantation. In earlier videos, opportunities were promoted as either interior to the plantation, or exterior to the oil palm economy, in terms of small-scale, perhaps informal, business ventures (Palmas del Espino, 2010). This contrasts with later videos, which promote the idea that the plantation is providing high skill level jobs, and is generally focused on employing regionally (Palmas de Shanusi, 2013).

A video correspondent in an interview entitled "The Miracle of Oil" explains that one of the principal alternative crops in Peru is oil palm. The correspondent goes on to explain that a group of farmers forming an agricultural association have changed their way of life by transitioning from the planting of coca leaf to devoting large amounts of land to oil palm, which is generating very good "dividends". The only video explicitly citing smallholders is a video by the upper-Huallaga based Palmas del Oriente, who highlights the lives of ex-*cocaleros* and their families; standing-in for development and positive benefits of oil palm collectives and associations. Also interesting is who benefits and how they benefit from plantation installation.

For instance, the plantation is offering schools and healthcare, which are normally implied to be provided by the State. This is part of an increasing tendency for public relations contracted by governments and industry to engage in the deployment of images in order to sway public opinion. This "green washing" is geared towards manufacturing uncertainty about environmental threats. "The narrative of greening is, in short, a resolutely aestheticized, non-politicized discourse closely tied to a broader official discourse of development" (Brosius, 1999: 286).

While protest videos do not focus on economic issues, one activist interviewed felt that communities peripheral to the plantations were not benefiting to the extent proposed by industry and government. He noted that there had not been any increase in houses constructed of concrete blocks, or *material noble*, or any other of the most common signs of poverty relief in Amazonia. But the highway between Tarapoto and Yurimaguas presented other signs of change – squatter settlements, a boom in "nightclubs" and commercial goods for sale seemingly in the middle of nowhere. These are not common stops for commerce, but growth due to the boom in the oil palm industry, landless peoples moving into the region, or recently selling their land to the oil palm companies. José Alvarez, questions whether oil palm as a form of alternative development to fight poverty in the Amazon, is the best way to do that through the destruction of primary forests? Again, citing a former councilwoman from Barranquita, "It is not that we don't want the company, but we don't like the form in which they came in and stripped people of their land. We want the care for the environment ... this is our vision ... this is the future of this district ... in the care of the forests" (La ley de la selva, 2008).

Conclusion: Ephemeral protests and hidden economies

The video collections and selected textual sources clearly define opposite views of oil palm development in the Caynarachi-Shanusi valley. *Environmentalist* videos are focused on socio-ecological impacts of large-scale oil palm expansion, such as access to clean water, loss of important forest species, and the contestation of territorial control and access. Protest videos from Barranquita connected community concern to a broader global environmental activism not seen in the current discourse over oil palm expansion further into the forests of Loreto and Ucayali.

Environmental discourses, and their associated medias and typologies, are ephemeral creations; but their use, as artifacts of environmental discourse remain a valuable tool to understand moments in ecological conflict. However, as Waitt (2005, quoting Rose, 2001: 157) points out, "absences can be as productive as explicit naming; invisibility can have just as powerful effects as visibility" (184). This chapter finds that both the production of dominant and marginalized discourses have inherently omitted alternative understandings of the oil palm economy, specifically understandings focused on smallholders who fit within communities but contribute to expanding the oil palm economy. Activist videos are not concerned with oil palm as an engine of land transformation in-and-of itself, but as the tool of plantation agribusiness. What these videos fail to show is how smallholder oil palm growers fit into the equation of natural resource development in the region. Palmas del Shanusi advertisements focus on community relations, environment and employment, but rarely leave the boundaries of the plantation. Other developmentalist views hold up smallholder oil palm as a success in the region that will lift

farmers out of poverty and fight illicit coca cultivation, but rarely do we see or hear from these individuals. Similarly, environmentalist representations of oil palm development focus on the plantation's influence on the region, because the threat of large-scale land transformations taking place in the region. However, the expansion of smallholders as agents of regional transformation is missing from the analysis.

Fieldwork in the Caynarachi-Shanusi Valley, some 5-10 years after protests in opposition to plantation establishment, demonstrate the continued growth of oil palm by smallholders, which indicates that similar environmental and social issues persist, although not at the same magnitude of large-scale plantation establishment. Therefore, what is important for this study is the middle ground where these descriptions collide, or the vacuum that is left by the silence that prior videos produce: the smallholder production of oil palm and how this affects the landscape and alternative views of the natural world. Both industry advertisements and protest videos fail to take into account the small-scale producers that are actively involved in oil palm production, in addition to how other smallholders view this economy. This may be due to smallholder inability to fit into categories of high investment opportunity (in one reading), or their perceived anti-environmental action (on another). This middle space is of key importance to this study. While I refer to the texts produced by these factions as discursive, it needs to be noted that the interactions between these groups is fluid and far more nuanced than this research can show. However, the videos and texts that were produced by these separate groups present a somewhat stable dichotomy between those in opposition to oil palm development – or at least the land

speculation and grabbing that occurs because of it – and those companies who actively promote its value to the regional economy.

CHAPTER 4: A STUDY OF STAKEHOLDER INTERVIEWS

This chapter views oil palm development and resistance in terms of smallholder outlook on plantation establishment. Protests in relation to large-scale plantation development have calmed in recent years after a victory against further plantation development on the San Martin side of the border. However, oil palm expansion continues at a rapid pace in other regions of the Peruvian Amazon, most notably in Loreto and Ucayali (EIA, 2013; Dammert, 2012; 2013). The conflict in the Caynarachi-Shanusi Valley, as one of the first of its kind in Peru, is often cited as a precedent in terms of conflict and pathways to future sustainable and responsible oil palm development. This section attempts to tease out community member and small-scale grower perceptions of past events, as well as future outlook and possibilities. As attention shifts focus to the continued loss of forests in other regions, this section plots the continued legacies of oil palm on the San Martin-Loreto border, and what the people of the region can tell us about the future of community, land and nature in this region of Peruvian Amazonia.

Fieldwork: Smallholder production and environmental outlook

My goal for fieldwork was to interview and collect narratives from key typologies of actors within the oil palm assemblage, including small and medium sized oil palm growers, in addition to smallholders who were not planting oil palm. I also interviewed community activists who had participated in many of the videos analyzed in the previous section. I also spent time with community members whom I interviewed informally about changes in the region. The following sections are broken down into key informant descriptions, and then addressed as a discussion of

larger narratives of change.

Small Producer (No Oil Palm)

Gerardo, 43, is a lifelong Barranquita resident. His home, which occasionally floods with the rains, and often lacks electricity, lies two blocks from the town square. Gerardo is a typical *chacarero* (a person who tends or maintains a *chacra*), with land about an hour from town by path, and boat, across the Yanayaku River. In addition to the traditional crops of the area, he raises some cattle on cleared pasture, and has an established cacao orchard. His son, Luis, is a 21-year old agronomy student in Tarapoto, whom I interviewed with Gerardo, and who accompanied me to other interviews and *chacras* in the area.

Small Producer (Oil Palm)

Zembrano, 58, is a lifelong resident of the area. He was born in Barranquita, but had been residing across the Caynarachi River in the small community of Nuevo Libertad for about 30 years. His *chacra* consists of a 3-hectare cacao orchard, and young oil palm plantings intermixed with all of the typical food staples of the area, including: plantain, corn, beans, and yuca. Before oil palm he had relied specifically on plantains, and later corn as a primary source of income. His young palms (< 3 years old) took up 5 hectares of land, and still had a year or so before being viable for harvest. He had signed a contract to sell his oil palm to INDUPALSA, and their processing facility that sits at the intersection of the *Carretera Marginal* and the road to Barranquita, for the life of the company. He received no credit to begin his operation, but was

provided support from the company by way of access to pesticides and fertilizers – although it was still his responsibility to pay for these inputs.

Medium Producer

Luis, Gerardo's son, took me to visit a farmer across the road from Nuevo Libertad, who is one of the oldest small-scale palm growers in the area. His 10-hectare orchard is more than 12 years old, planted during the first alternative development UN anti-drug installations in the area. The farmer has 25 hectares total devoted to both oil palm and food crop production. He couldn't be interviewed because he was at another site clearing a new *chacra* for food crops, since more land was needed to compensate for the high amount of land planted to oil palm. His wife kindly gave us permission to walk around the plantation adjacent to the house. Luis took this opportunity to show off his knowledge of agriculture practices, explaining the ways growers plant oil palm in geometrically precise rows to allow the crowns of fully matured palms access to sunlight without competition. He also pointed out the lack of undergrowth beneath the canopy. This, he said, was due to the application of herbicides and the crowding out of available canopy light. The understories of plantations go through a life process of their own, in tandem with the trees. Young plantations are planted with a tropical variety of *kudzu*, which acts as a cover crop to deter competition, and minimizes the manual labor required for weeding.

There was a stark divide between the aging oil palm plantation and an adjacent young plantation, where bare soil gave way to the tangled understory of kudzu. This, Levi pointed out, was a troubling sign. He wondered what would become of the plantation after it was abandoned.

The land would be devoid of any nutrients; and anyway, the trees would be difficult to pull out – kicking the base of a towering palm as he said this. I asked Levi what would happen to the land once the trees couldn't produce any longer. He said matter-of-factly that the land would be worthless, and would take a long time to recover. When I asked why a farmer would plant something that may damage his land in the long term he responded that farmers often don't worry about that, since that day was – even for this older plantation – still far off. For now, with a plantation in full production, the farmer would be able to send his children to school, buy clothes and the food he was unable to grow. The farmer also hoped that his sons and daughters would be able to attend a regional University, leave the life in *el campo* and take care of the family in the future.

Activists

Jander is a shop owner, farmer and activist living in Barranquita, and a visible part of oil palm resistance in Barranquita; appearing in several videos produced in the resistance to oil palm expansion, and was the president of the *Frente de Defensa y Comité de Lucha del distrito de Barranquita*. Although he has a *chacra*, he prefers not to grow the popular commodity crops, such as cacao, and he only grows enough rice for himself since the return for smallholder rice is too small. He is against growing oil palm himself, but doesn't fault smallholders even though he thinks the returns are minimal and only benefit the companies that buy the palm, which are ultimately linked to land grabbing. Armando is another member of the parish who I met while interviewing Jander at the parochial radio station in Barranquita. He is an agroforestry technician

by trade, and has a *chacra* in which he utilizes permaculture practices. However, neither of these individuals sells any products on the market. Both are to some extent buffered from selling on the market since both have separate jobs, own businesses in town, and have spouses with careers.

Discussion of common views

Like in other studies, producers and activists in this study are often ambiguous about their place within the chain of oil palm, especially within the dominant environmentalist and developmentalist discourses (see Escobar, 2008). As such, the explanations put forth by these actors in the Caynarachi-Shanusi Valley offer a way to understand how "knowledge producers resist, adapt, subvert dominant knowledge" and create their own, as opposed to simply "resisting" development interventions or environmental destruction (Escobar, 2008). The following sections highlight some of the underlying themes that smallholders view as changing, or unchanging in the face of oil palm development. Important here is the recognition that "resistance," as highlighted in the previous chapter, is not as simple a thing as researchers, including myself, often imagine (Brown M., 1996). In Brown's (1996) critique he calls for a more nuanced view of the continual change in the social landscape, especially in the ways that local communities enact their own politics, which is appropriate in terms of the continued oil palm development, especially in how it relates to smallholder desires and land use.

Forests and Nature

As was the case in a study by Rhodes (1987), many farmers in the Yurimaguas area persist in maintaining some form of primary or secondary forest stand on their *chacras*, regardless of crop

mix and technological inputs. My assumption was that this might be faltering as a consequence of an increase in long-term plantation crops. In addition, since oil palms can produce fruit for up to 25 years, and associated income is not enough to forgo subsistence cropping, more land is needed for household consumption. However, Gerardo, although he doesn't currently grow oil palm, continues to maintain around 1.5 hectares of "virgin" forest (*puro monte*), which he saves to supply various forest products. In addition, when prompted about the use of his remaining forest, Gerardo responded that, "this forest is reserved for a time when it can be used for something with tourists ... because in the future people will want to know the forest." Zembrano, in addition to his oil palm orchard, has 5 hectares of "virgin" forest, which he keeps for medicines, hardwood extraction, and what he described as their natural beauty. He expressed that "one shouldn't consume everything, but leave some for nature." Similarly, Armando and Jander continue to keep forests on their properties in order to conserve what is left in the area. The response by smallholders and community members in preserving some form of forest provides an example of independent conservation into the future. While this may change as permanent crops expand, prices fluctuate, and more pressure is placed on land as population rises, there appears to be a strong sense of preserving forest for both economic reasons, and for the enjoyment and the benefit of nature for future generations.

In the Tambopata region of the southern Peruvian Amazon, Alvarez *et al* (2003) found that the area under secondary forest expanded significantly, as credit availability decreased throughout the Garcia administration. They also pointed out that although old-growth forests have greater ecological and economic value (in terms of greater species selection and

variability), secondary forest can provide benefits, including medicinal plants, soil recuperation, hunting areas, and environmental services such as carbon sequestration (Alvarez *et al.*, 2003). Secondary forests can be managed to provide many of the products that small-farmer households traditionally obtained from primary forests while still maintaining environmental services, including hunting and foraging, and tree species with commercial value as construction material. For instance, Zembrano had spared commercially important tree species from his oil palm clearings, preferring to leave the *Copaiba* (*Copaifera* sp.) and *Aguaje* (*Mauritia flexuosa*) trees in place among the oil palm saplings, for timber harvesting, medicinal uses and fruit harvesting respectively. However, secondary forest can only partly replace the ecological and economic services provided by primary forests. For this reason, it is important to map and track not just forest, but processes of deforestation and regrowth and to incorporate such knowledge into sustainable forest management practices, and to promote and enhance the economic value of secondary forest while promoting secondary regrowth where possible (Alvarez *et al.*, 2003).

Another important source of conservation practices by smallholders is the continued preservation of culturally important food crops. Having been linked directly with notions of indigeneity, food security and control of natural resources is integral part of life throughout Amazonia (Perreault, 2005). As such, food crops continue to play an important role in smallholder culture and livelihood in the area. Although Zembrano is enthusiastic about planting perennial crops such as cacao and oil palm, his favorite crops still include traditional food crops such as beans, plantains, and yuca. While the financial and ecological costs of converting to oil palm may at first seem low, the full extent of transition is often obscured by the transition period.

An analysis by Anggraini and Grundmann (2013) revealed that smallholders in Indonesia continued to practice annual crops rotations during the establishment phase of an orchard to compensate income losses in the first few years after the conversion to oil palm cultivation. This production pattern was practiced as long as the leaves of the oil palm trees do not overshadow the land, which is the case 3 to 4 years after the establishment of the plantation (Anggraini & Grundmann, 2013). However, after this period, annual cropping is soon not a viable option for farmers on their original plots of land, as was seen with the medium level producer.

Economy and Livelihood

When I asked Zembrano what had changed the most throughout his years in the area, Luis reformed the question to asked what kinds of "developments" had taken place. Zembrano's response was that "there has not been any development, except for the palms *(no hay desarrollo, salvo estas palmas)* – nodding to the young oil palm seedlings growing in a penned nursery adjacent to the Caynarachi River, just below his stilted house. Zembrano was insistent that he was doing much better because of the new alternative crops being promoted in the area; the oil palm provided an even better price than cacao. He was quick to point out that traditional crops such as beans, corn and yuca are still the most important cultivars on his property, and diversification provided the best outcome. At the time of my research, smallholders, such as Zembrano, were enthusiastic about the promise of alternative crops. These crops bring more government and private support in terms of agricultural technical support, the financial returns are higher, and they require less labor because they are semi-permanent. Entire families are now

involved in oil palm production, earning between 2,000 and 3,000 soles a month, per hectare. In a published interview, one farmer said that combined with *palmito* (*Bactris gasipaes,* from which edible palm hearts are extracted) he can now "live well", and that his children and wife could work between 4 and 5 hours and harvest more or less 1,000 kilos a day (INDUPALSA). According to international prices, each farmer earns $180 USD per ton (S/. 508 *nuevo soles*), with 143 plants per hectares. This is a substantial boost in income, as typical earnings for informal wage labor in the area are between $1.50 and $2.00 a day, or almost $8.00 a day (S/. 25) working in the plantation.

However, these crops require more land and inputs. For oil palm to be a viable activity the farmer must plant between 5 and 10 hectares to oil palm, in an area where agriculturalists rarely plant more than 10 hectares. The medium producer in this study had to open up new lands to plant food for his family. In addition, some worry that after the oil palm orchards cease production, the land will have no value for "neither corn nor beans". After this phase, converting plantations to other crops is difficult because of changes in the soil conditions caused by the high consumption of water and soil nutrients of oil palm trees. Indonesian farmers interviewed by Anggraini and Grundmann (2013) stated that once oil palm cultivation has been established on a plot, it is difficult to return to food crop production. They often mentioned the negative impacts of oil palm trees on other subsistence and commodity plants. Because oil palm trees consume so much water, they can lower the groundwater table, deteriorate nearby crops and change the soil structure (Anggraini & Grundmann, 2013). In Ucayali, abandoned plantation lands have been transferred to former employees, as part of social benefit payments by the plantation companies.

Many of these former employees eventually migrated to cities in search of employment, leaving their new farms in the hands of family or friends; in other cases, such plots were divided (MINAG, 2000). These properties are again abandoned due to a lack of credit necessary to renew the soil and plant crops formerly abandoned in favor of oil palm. Smallholders in Barranquita are aware of these ecological impacts, but for now disregard them in favor of advantageous prices. During my interview with Zembrano, Luis made the statement that oil palm will only leave land dry and infertile. Interestingly, Zembrano acknowledged this fact with a nod and an agreed whisper before taking me on a tour of his land, which would soon be planted to kudzu and the oil palm seedlings scattered throughout the property waiting to be planted.

Activism and Politics

According to Jander, the oil palm company continues to be the greatest divider of community solidarity, he explained that "before the company there were no community conflicts, and even migrants moved in without too much conflict". Migrants and locals alike were united against the oil palm company during the time that land was being consolidated. All of the participants I interviewed had taken part in protests against Grupo Romero, even those now involved in smallholder oil palm production. The former community solidarity had since died away as people find their separate ways to survive. For this reason, multiple informants lamented, nothing gets done; people are disgruntled with local politics but don't band together as they had before. Zembrano participated in demonstrations against Grupo Romero on numerous occasions; marching with the community to Yurimaguas, Tarapoto, and the plantation itself to demand a

stop to large-scale deforestation. When asked about the outcomes of the protests, he appears less than enthusiastic. However he doesn't see any problem with taking advantage of the opportunities oil palm currently provides, "anyone can decide to plan; it is their decision".

Discussing past resistance to Grupo Romero, Gerardo and Luis explained that "now, that [the protests] have passed we know that in Peru there exists a democracy – supposedly – and every few years a new president is elected, a new mayor, regional government president – a change of authority." The government of Alan Garcia was often cited in relation to the period of protests, whose government marked the height of conflict. Zembrano also faulted Garcia for selling the Amazon to companies like Grupo Romero. Citing local government, Luis said that "the outgoing government did a lot to our lands, and the current authorities ... they continue to take, take, and take." Luis further felt that there was corruption at many levels, however, now the community was calm, "but the silence means a lot". According to Jander, this "silence" is proof that Barranquita "is sleeping," which is allowing continued land grabbing and a further deepening political corruption. According to him, all aspects of local government are part of Grupo Romero, and that "in five more years you will see an even greater growth of palm."

While other community members cited continued political corruption and stagnation, and a communal fatigue, activism remains an important fact of life in the region. Community members pointed out that parish radio programs provided by *Radio Caynarachi* continue to keep the community aware of social and environmental issues in the area – if they care to listen. Marylou, Gerardo's wife, said she learned a lot from the radio, because there was no Internet, the programs were her only source of news.

Land Grabbing

It seems that oil palm development will continue apace into the future. With the possibility of a new road connecting the Barranquita highway to other regions of Peruvian Amazonia, migration as well as land speculation and trafficking will continue, along with the continued expansion of smallholder oil palm. According to Zembrano, "they say there is free land for people that want to come and live in the *pueblo*." Although there was some disagreement as to the number of migrants in the area, with residents of Barranquita often citing a high number of new residents. The continued expansion of infrastructure is critically important for smallholders in the area, but will also entice migrants and agricultural expansion.

Additionally, informants expressed concern that the plantation company was continuing to purchase land through intermediary buyers. While not directly observed, community members are acutely aware of this process, often citing the presence of buyers in the area being affiliated with corporate interests. Luis explained that Grupo Romero is advancing through communities, little by little, and are "going to buy, buy, buy". One community member explained that intermediaries were going to nearby communities, both on and off the marginal highway, and purchasing land from smallholders to then sell to Grupo Romero. I asked Marylou what these people would do without their land and she replied that they would rent rooms in town, but there was no work for them. She said without a farm, there is no work for people unless they leave the area. In a publicized example, in August of 2014 the native Shawi community of San Jose, in the Caynarachi Valley, filed an environmental criminal complaint (*denuncia penal ambiental*) with SUNARP against a local woman living in the town of Naranjal – along the Tarapoto-Yurimaguas

highway – for selling part of the community's land to the plantation company, which the company subsequently deforested, despite the communities legal title to the land as part of their native community status. Kate Horner, the EIA Director of Forest Campaigns, has cited "the increasingly opaque corporate ownership structures of agricultural companies complicate the implementation and enforcement possibilities of recent 'zero-deforestation' pledges by powerful, multinational corporations". She further worries that pledges and sustainability grading systems rely on "supply chain traceability and excluding suppliers that are responsible for deforestation and human rights abuses, so that if responsibility for such acts is "obscured through a network of shell companies, commodities linked to deforestation will continue to enter the supply chain" (Business Wire, 2015).

CONCLUSION

The previous chapters were meant to highlight some of the issues and anxieties facing smallholders in the Caynarachi-Shanusi Valley, and to show some of the ways that farmers and community members have reacted to the expansion of oil palm, largely in ways that move past the resistance prevalent at the height of protests. The principal focus was to show that there continues to be contested opinions between local people as to how to approach the future of agrarian change in the region. Smallholder views show us that the focus of resistance and protest over time can become a messy and complex thing as new economic and social opportunities appear, and as local groups adapt to new models of development and environmentalism, not expressed by the dominant discourses (see Table 1).

Discourses of oil palm development in the Caynarachi-Shanusi Valley			
	Developmentalism	**Environmentalism**	**Smallholder Views**
Forests	Reforestation of degraded land; plantation jobs will lead to an overall decrease in smallholder forest conversion	Agroindustrial and biofuel crops lead to deforestation	Orchards can be a part of normal crop rotation; smallholders keep forest reserves for natural resource use
Natural Resources	Plantations conserve natural areas; use water resources sustainably and equitably	Plantations lead to a loss of economically important and wild plant and animal species; water scarcity and/or pollution	Resources already available on property continue to exist; other activities (*e.g.* hunting) declined before oil palm development; traditional food crops and medicinal plants still important cultivars
Territory	Follow legal mechanisms for purchasing land	Loss of titled land; loss of communal and informal land; increase in land tenure conflict	Empty land available for migrants, and smallholder expansion
Social Inclusion	Plantations provide jobs; companies provide healthcare, education, and sanitation	Minimal to no social inclusion; no prior consent; increased migration; rise in landlessness	Alternative crops are a positive and lucrative addition to economy; everyone is free to choose their own level of involvement

Table 1. Discourses of oil palm development in the Caynarachi-Shanusi Valley

Based on these findings, it seems that, at least in some ways, smallholders are adapting to produce a new lucrative crop, while still taking into consideration environmental and social

concerns that lead to diversified livelihood systems, which lead to far more sustainable outcomes than large-scale plantations. As Kottak (1999) has pointed out, if traditional resources and products are to be destroyed, removed, or placed off limits (whether for development or conservation), as they are through oil palm development, they need to be replaced with culturally appropriate and satisfactory alternatives. There are many ways to approach the new economies of oil palm, but smallholders and community members alike are aware of the challenges ahead, and many are forging small forms of "resistance" related to their hopes and livelihoods, such as preserving forests, and continuing to diversify their *chacras*. While local activists continue to raise awareness of social and environmental issues.

In the context of the Caynarachi-Shanusi Valley, smallholder oil palm presents a relatively benign form of land use, compared to examples in Indonesia (Anggraini & Grundmann, 2013; McCarthy, 2010). Based on fieldwork, smallholder oil palm is currently implemented as a form of perennial agroforestry, and has a far better social and ecological impact compared to large-scale plantations. This may not be the norm, however, as extension agents and agronomists promote the same cropping systems implemented by plantations. This will have serious consequences for plant and animal diversity, and possibly food security in the near future. While additional pressure on land availability and natural resources could follow if this pattern continues. The socio-economic potential of smallholder oil palm has positive benefits in the short term; however, more research needs to be conducted on the long-term social and environmental impacts confronting growth in smallscale production and processing.

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