

**Institutions, cross-scale linkages, and justice:
Exploring the human security implications of forest carbon regimes¹**

Draft Research Exposé
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Abstract

Traditionally, the evolution of governance mechanisms has been studied at a macro level, whereas the impacts of institutions and regimes are investigated at a micro-level. There has been insufficient attention paid to understanding the vertical linkages of institutions from the international level down to the household level. Similarly, there has been little research on the interactions of horizontally linked institutions at multiple scales and what impacts they have on achieving policy outcomes and affecting local livelihoods. As states continue to negotiate the future of a global climate regime, it is important that better understand its potential distributional and human security implications; the current segmented research approach masks these consequences. The proposed research seeks to address this research gap with both methodological and substantive contributions through an in-depth investigation of forest carbon regimes. More specifically, the proposed research will examine the institutional relationships in three Reducing Emissions from Deforestation and Degradation (REDD+) countries in order to understand the potential impacts of the introduction of a new, global regime. By mapping the causal relationships between institutions and livelihoods and identifying the horizontal and vertical networks across scales, this research will provide scholars and policy makers with a more robust understanding of how global governance architectures directly impact local communities.

This paper presents one component of the proposed research: the Laos case study. The Forest Carbon Partnership Fund identified Laos as one of the first REDD-Ready countries to receive pilot funding for forest conservation. REDD, however, has the potential to contribute to uncertainty for communities, increasing vulnerability among the marginalized poor. By creating new property rights systems and restricting access for forest-dependent villagers, REDD transforms the traditional institutions that help provide stability in communities.

¹ This paper was initially presented at the Climate Vulnerability and Adaptation Workshop sponsored by the Initiative for Climate Adaptation Research and Understanding Through the Social Sciences in February 2010. The original title was: "Is Laos Ready for REDD? The Impact of Climate Change Policies on Human Security."

This paper examines how variations in property rights systems impact the vulnerability of local groups to environmental change in Laos. By investigating the politics of rights and benefit-sharing in the context of REDD, the proposed research suggests rethinking climate change mitigation projects. It argues for a closer examination of how the complex, nested nature of property rights directly impact human security in Laos.

Note to Readers: This paper is a work in progress and represents my initial attempts to develop a broader research agenda on interconnected aspects of climate change mitigation, adaptation, and human security. There is substantial room for improvement, and I recognize that I have not fully elaborated some of the theoretical foundations necessary for a thorough analysis. I appreciate any and all feedback.

INTRODUCTION

In the fall of 2009, Typhoon Ketsana caused massive flooding and destruction across southern and central parts of the Lao People's Democratic Republic (Laos). Although official death toll reports are low, the damage was estimated at USD 94.2 million.² 90% of Attapeu Province, the most southeastern province in Laos, was affected by the typhoon.³ Some attribute the severity of Typhoon Ketsana to climate change, viewing the event as a foreshadowing of destruction to come with rising global temperatures. The growing threat to human security in developing nations across the world from climate change is stimulating a rapid rise in the development of both climate adaptation and mitigation projects. As one of the first REDD-Ready⁴ countries in Asia, Laos is preparing to improve human security and livelihoods in the face of global climate change. The government is both seeking to implement a variety of climate adaptation projects and are hoping to reap the benefits from global climate mitigation efforts such as REDD. There is, however, the potential risk that REDD may inhibit the ability of local communities to adapt to climate change. This could result from two potential outcomes of REDD: first, REDD may be effectively implemented, securing large tracts of previously (*de facto*) open access forest and cutting off resource access to local people - and thereby their mobility; or, second, REDD could fail to provide the anticipated economic benefits to local communities while restricting livelihood opportunities, leaving local communities more impoverished.

Building upon lessons learned from previous forest conservation projects in Laos, this paper seeks to present a framework for examining the linkages between REDD, climate mitigation, and human security to highlight the potential opportunities and risks for addressing climate change in poor countries with forest-dependent peoples. Human security is a concept that remains largely undefined and vague. Knowing that I risk contributing to the slippery nature of the conceptualization of human security, I must still posit my understanding of human security in the context of this paper: it is "the condition where people and communities have the capacity to manage stresses to their needs, rights, and values."⁵ By employing this definition of human security, I will build upon other climate change and human security studies, and hopefully contribute to a more advanced formulation of the concept.

In the first section of this paper, I will elaborate on the concept of human security a bit further by suggesting a way to operationalize human security as a dependent variable. The second section of this paper presents background on Laos. As a case study, Laos provides an interesting political and natural landscape for researching the climate change policy frontier. Laos, like some other countries in Southeast Asia, has a role in both climate adaptation and mitigation projects. Yet, unlike many other countries in the region, Laos has one of the greatest likelihoods of reducing forest loss and degradation. This is due to a number of factors, including low population density, a strong central power structure, and a long history of foreign aid assistance for forest management. Although Laos could gain from potentially significant inflows of payments to reduce emissions from deforestation and degradation (REDD), the current institutional context provides significant constraints for project effectiveness that could affect the ability of local communities to adapt to climate change. More specifically, the underdeveloped

² Vientiane Times, "Typhoon Ketsana caused 94.2 million dollars of damage in Laos" 17 November 2009.

³ Voice of America News. "Typhoon Ketsana Victims in Attapeu Need Most Help" 20 October 2009.

<http://www.voanews.com/lao/archive/2009-10/2009-10-20-voa4.cfm?CFID=354583479&CFTOKEN=94696574&jsessionid=883095e06f4020a46384223d365127f3d139>

⁴ REDD = Reducing Emissions from Deforestation and Degradation; REDD-Ready refers to countries selected for funding to prepare for introducing REDD mechanisms.

⁵ Cited in Barnett and Adger (2001). 640.

nature of resource tenure regimes could both limit benefits-sharing opportunities for local communities and exacerbate uncertainty that threatens human security.

The third section of this paper focuses on one of the larger challenges confronting the implementation of REDD, but that also threatens to limit local adaptability to climate change: resource tenure. This is followed by a discussion of the linkages between tenure and livelihoods, highlighting the precarious nature of the argument that suggests that more secure tenure will lead to improved livelihoods. Next is an analysis of the challenges of tenure in relation to implementation of a REDD mechanism. In the final section, this paper suggests potential linkages between climate adaptation, mitigation, and human security.

The task of this paper is complex: I am trying to capture lessons from three broad literatures on climate change and human security, resource tenure and livelihoods, and REDD, in order to inform a more holistic understanding of the interconnected nature of the challenges and opportunities of climate change. Although these connections are not empirically proven, this paper aims to set forth a research agenda for future empirical endeavors.

UNDERSTANDING HUMAN SECURITY IN LAOS

As mentioned in the introduction of this paper, the concept of human security is vague. Many scholars debate the utility of “human security” and question what value or insights it can bring to advancing research or guiding policy-making.⁶ The myriad of definitions and articulations suggest that it is an all-encompassing concept that captures almost everything outside of a state’s action to defend its territory and sovereignty. Human security is broadly considered to encompass seven components: economic, food, health, environmental, personal, community, and political security.⁷ The concept developed out of the recognition that the traditional understanding of security, which centered around states defending their territory to maintain sovereignty, did not capture the possibility that citizens within a state may not have guaranteed security.⁸ Although there is some value in a holistic understanding of human security, such a broad understanding is not helpful for theory development nor for empirical research. To that end, this paper proposes building upon the definition offered by Barnett and Adger:

Human security is “the condition where people and communities have the capacity to manage stresses to their needs, rights, and values.”⁹

This conceptualization of human security is derived out of a framework for understanding human security developed by Alkire, who conducted a thorough review of the literature to arrive at some commonalities in definitions.¹⁰

To realize the potential for the concept of human security for providing guidance in research and policy, it is necessary to consider how human security can be measured. Operationalization of the concept of human security remains problematic due to the contested nature of the concept’s formation. King and Murray suggest the following operationalization: “the number of years of future life spent outside a state of ‘generalized poverty.’”¹¹ Generalized poverty can be based on a variety of selected well-being indicators, such as household income,

⁶ See Paris, R. (2001).

⁷ UNDP. (1994). *Human Development Report 1994: New dimensions of human security*. p. 24

⁸ King, G. and C. Murray. (2001). Rethinking Human Security. *Political Science Quarterly*. 116(4): 585-610. p. 588

⁹ Barnett and Adger (2001). 640.

¹⁰ See Alkire (2003).

¹¹ King, G. and C. Murray. (2001). Rethinking Human Security. *Political Science Quarterly*. 116(4): 585-610. p. 585.

assets, access to roads, schools, hospitals, nutritional intake, etc. This could be an appropriate operationalization of human security, but it fails to capture the essence of the definition posited in this paper, namely the capacity that people have to manage shocks or stresses to their living systems. To operationalize human security for the purposes of this paper, it may be useful to develop an understanding of what “capacity to manage stresses” means in the Lao context. Capacity to manage stresses can be measured by incorporating access to land and forest resources, access to credit, and access and ability to participate in decision-making processes. Human security is thus threatened when uncertainty regarding capacity exists. Bearing this understanding of capacity to manage stresses, the specific problem this paper posits is the following:

If uncoordinated, climate mitigation efforts under a REDD mechanism will impair climate adaptation efforts, resulting in declining levels of human security.

The proposed problem for investigation involves several components. I will first argue that REDD could negatively affect human security in two ways. First, if not addressed at the national level prior to the implementation of REDD projects, unclear tenure arrangements will create reduced tenure security, thereby exacerbating poverty at the local level. Second, if tenure regimes are clarified and strengthened but benefits-sharing arrangements are unclear, then local communities could remain impoverished with few opportunities to improve their well-being. Both of these options result in increased uncertainty for local communities: uncertainty regarding land and forest access, and uncertainty regarding livelihood opportunities.

The interesting twist and second component of the problem originates when considering the current tenure regimes in light of the potential land and forest needs for climate adaptation. It could be argued that the current land policy landscape is more favorable towards adaptation than a changed landscape which incorporates REDD. For example, although the current land tenure regime remains weak and uncertain, the uncertainty could provide more flexibility for households to access additional and forest resources if necessary under changing climate conditions. If REDD is implemented, regardless of the status of land tenure, substantial tracts of forest are likely to be more effectively protected than they currently are, reducing the options that households have to move or expand agricultural production and gathering. This apparent paradox will be elaborated further later in this paper. Prior to moving forward with the outlined analytical framework, the following section will provide a brief background to set the stage for understanding climate change and human security in Laos.

BACKGROUND: LAOS

Laos is a small, landlocked country in the heart of Southeast Asia. It is a central landscape in the Greater Annamite Ecoregion, an area with some of the richest biodiversity in the world. There is more than 40% forest cover¹² across a variety of landscapes, ranging from wetlands to limestone karst formations, mountains, and the Mekong river valley. Its population of just under seven million people is made up of a diverse collection of ethnic backgrounds and languages: more than 100 ethnic groups and 135 distinct dialects are found across the landscape (CIA 2009). Despite this natural and cultural wealth, Laos faces extreme poverty and severe challenges for economic development. 74% of Laos' population lives on less than \$2/day (WRI 2009) and subsistence agriculture is the primary occupation of 80% of the total population (CIA 2009). Worldwide, Laos is ranked 186 in GDP per capita, which is estimated at

¹² Forest cover is defined by the Government of Lao PDR as forested areas with 20% canopy density or higher. Under the FAO criterion for forest cover (10% canopy density), Laos has more than 70% forest cover.

\$701 (2007 est.).¹³ Rice cultivation is carried out using two main techniques: paddies, which is typical in the lowland areas of Laos, or dry cultivation, which is practiced in upland or highland areas on the slopes of hills and mountains. Because mountains cover approximately 70% of the terrain in Laos there is very little land available for paddy rice production. Until recently there has been little foreign direct investment, virtually no revenue base for the government, and 80% of the government's budget for capital investment comes from Overseas Development Assistance (ODA) (CIA 2009). It is a Communist state that uses a hybrid system for establishing legal norms.

Laos' role in climate change is twofold: adaptation and mitigation. First, although Laos is a landlocked country and is not expected to experience the most extreme impacts of climate change in Southeast Asia, it does have among the lowest capacity to adapt in the region.¹⁴ Adaptive capacity is "the degree to which adjustments in practices, processes, or structures can moderate or offset potential damage or take advantage of opportunities (from climate change)."¹⁵ The index is calculated by accounting for socio-economic factors, technology, and infrastructure. Laos' extreme levels of poverty, poor governance, and limited capacity to adapt means that Laos is very vulnerable to potential impacts from climate change, ranking among the most vulnerable countries in Southeast Asia.¹⁶ The most severe impacts from climate change will result from increasing intensity of floods and droughts, particularly in low-lying regions, causing rice paddy and livestock losses, increased incidence of disease, and loss of equipment and housing.¹⁷ Although annual flood cycles are considered valuable for the increased supply of fish and other aquatic species, as well as soil enrichment, the ability of local communities to benefit and recover from annual floods is diminishing as flood frequency and severity increases. Communities living at the edge of subsistence may not be able to survive without effective participation in adaptation programs.

Secondly, although Laos faces significant challenges because of its low adaptive capacity, the country is in a position contribute to climate change mitigation and reap substantial benefits through REDD. By offering direct payments for avoided deforestation and degradation, as well as enhanced carbon stocks, REDD offers a new spin on development assistance for forest conservation. Essentially, countries that participate in REDD will establish baseline forest and emissions information and commit to specific levels of carbon emissions reductions or carbon stock enhancement and receive payments based on performance. While the specific mechanism and monitoring and verification procedures are different, the basic incentive structure for reducing deforestation and degradation remains the same as past efforts to promote forest conservation. Donors will provide support and funding to conserve forest resources with the belief that the funding will provide the GOL with an incentive to do so. Although past attempts have been unsuccessful in affecting positive environmental change for forests, proponents of REDD believe that both the level of funding and the long-term nature of the funding will alter the decision-making framework of the GOL towards improved forest governance.

¹³ National Statistics Center. 2009. Available online at:

<http://www.nsc.gov.la/Statistics/Selected%20Statistics/GDP.htm>. Accessed 23 January 2010.

¹⁴ Yusuf, AA and H. Francisco. (2009). Climate Change Vulnerability Mapping for Southeast Asia.

¹⁵ Yusuf and Francisco. (2009). Climate Change Vulnerability Mapping for Southeast Asia. p. 8.

¹⁶ Climate Vulnerability Index. (n.d.). Climate Vulnerability Index. Available online:

<http://ocwr.ouce.ox.ac.uk/research/wmpg/cvi/#links>. Accessed 10 December 2009.

¹⁷ Mekong Wetlands Biodiversity Programme (MWBP). (2005). Vulnerability Assessment of Climate Risks in Attapeu Province, Lao PDR.

The extent to which both REDD and adaptation efforts in Laos will be successful relies upon the establishment, implementation, and coordination of effective institutions that embrace human security as *the* primary goal. If human security is ensured, other goals are more likely to be achieved. The challenge that Laos may face is in determining the appropriate institutional and regulatory frameworks that can balance Laos' contributions to climate mitigation while maintaining the flexibility required for climate adaptation.

RESOURCE TENURE IN LAOS

Since its establishment in 1975, the GOL has struggled to establish an effective governing mechanism and sound legal system. This struggle can be largely attributed to a lack of human resource capacity and poverty, but the current political structure also plays a role. As introduced in the background section of this paper, Laos is ruled by a one-party government, which exerts power across the landscape. While effective in controlling the population and maintaining power, the government otherwise performs poorly. Laos ranked 158 out of 180 on Transparency International's Corruption Perceptions Index in 2009, slightly worse than its ranking of 151 in 2008.¹⁸ Government effectiveness ranks in the bottom 25% of nations worldwide, and the rule of law remains weak.¹⁹ Often, the government will sacrifice positive conservation and development outcomes, as seen with the FOMACOP program in the late 1990s, in the interest of maintaining its own revenue stream.²⁰ The result is a tangled web of clientelistic relationships that promote forest loss and degradation at the expense of local livelihoods. Those with power form an elite group of individuals who control activities and reap the benefits, while those with little or no power are forced to constantly adapt to constant change.

The average Lao citizen is faced with constant uncertainty: uncertainty about the future, opportunities, rights, and his or her role in society. As with most societies, some individuals will rise to power within the village government or societal structure, while most will maintain their status throughout their lives. While most donors and development agencies are seeking to provide equal opportunity to all Lao citizens, inevitably those with more power will receive disproportionate benefits. Power is perhaps the core element that consistently derails attempts to provide secure tenure to Laotians. Characterized by uncertainty, Laos' resource tenure system captures both vertical and horizontal power relationships, and is the focal point of the proposed analysis.

In 1989, following the 1986 adoption of a New Economic Order, the GOL initiated its first program to delineate property rights to individual households. Since that time, a variety of projects have been tried and adjusted to provide land rights to citizens, but the essential premise remains the same: the GOL owns all land and forests throughout the country; individuals and households are granted use rights to cultivate some land for personal use, but do not own the resources on that land. Rather than laying out the legal framework for land and forest management in Laos, which one scholar suggests "is a potentially obfuscating analytical basis for understanding contemporary forest-land management issues in Laos",²¹ this paper will

¹⁸ Transparency International (2009). Corruption Perceptions Index. Available online at: http://www.transparency.org/policy_research/surveys_indices/cpi/2009/cpi_2009_table. Accessed 23 January 2010.

¹⁹ Kaufmann D., A. Kraay, and M. Mastruzzi 2009: *Governance Matters VIII: Governance Indicators for 1996-2008* Available online at: <http://www.govindicators.org>. Accessed 23 January 2010.

²⁰ FOMACOP, or the Forest Management and Conservation Project, was co-funded by the World Bank, FINNIDA, the Global Environment Facility, and the GOL. It sought to strength village involvement and forestry officials' capacity to develop and implement sustainable forest management and biodiversity conservation systems.

²¹ Fey. 2007. p. 27

simplify matters by providing the current statistics on land use titling. To date, Land Use Planning and Land Allocation (LUPLA) has been carried out in 65% of all Lao villages; LUPLA is the process that should occur in each village before temporary land use certificates (T-LUCs) are issued. T-LUCs, however, have not been consistently issued with LUPLA, and no TLUCs have ever been recorded as permanent LUCs (Fey 2007). There are effectively few to no Lao citizens with secure land title. By failing to consistently issue T-LUCs and by failing to ever convert a temporary LUC to a permanent LUC, the GOL is able to maintain maximum flexibility for pursuing its own land and resource management agenda. This continues to solidify the central government's power and creates substantial uncertainty within communities. The LUPLA program strengthens the vertical power hierarchies throughout the country.

In practice, the impacts of uncertainty in land tenure not only emerge when considering the absence of the shadow of the future for many Lao citizens, but, perhaps more importantly, they emerge when government priorities for development trump local rights. For example, tree plantation investors in multiple villages in central Laos have been granted the rights to convert natural forest that had been allocated as village conservation forest. In other words, some community-managed forests, which had been granted by the central government to the local village government, was recaptured and reallocated to foreign plantation companies without involvement from local villages as stakeholders in the decision-making process. I have come across these cases in my own field research, and there are multiple accounts provided by other scholars.²² Villages are compensated for the use of their land at USD 1 per hectare for the duration of a 50-year concession agreement.²³ The loss of village conservation forest has a direct impact on villagers, particularly on those who are poorer and rely more heavily on non-timber forest products (NTFPs) to supplement their income. One study of upland subsistence patterns in Laos found that villagers reported that up to 55% of their income was derived from NTFPs.²⁴ Removing access to important resources not only reinforces the vertical power hierarchies in the country, but creates shifts in power among stakeholders at the local level: the poor become poorer and have less opportunity to obtain power, and the wealthier secure more power in the village structure.

The lack of a guarantee of access to forest resources and the possibility that land use rights may be appropriated for other users creates significant uncertainty in the land tenure system in Laos. Households are unsure if the land they currently use will be expropriated for concession to a plantation company; companies are unsure if the investments they make to develop an area for a plantation will be confiscated for unclear reasons. Although in practice, private investors are less likely to lose their right to their investment, there is a real threat that villagers will lose their access to lands they traditionally use. A number of studies have found that Laos' LUPLA program has been largely ineffective, exacerbating poverty and worsening food security,²⁵ calling the causal relationship between tenure security and poverty reduction into question.

TENURE AND LIVELIHOODS

There is a strong neoliberal tendency among donors and international development agencies to associate secure land tenure with poverty reduction and improved livelihoods.

²² See Barney. Hyakumura, french study in the north.

²³ 2009 rate.

²⁴ Bounthong et al. (2003) Upland agriculture and forestry research for improving livelihoods in Lao PDR. Conference proceedings. <http://www.unu.edu/env/plec/marginal/proceedings/Content.htm>

²⁵ For example, Sunderlin et al 2007, Hobley 2007, Barnes 2007.

Theoretically, more secure land tenure will provide incentives for individuals to invest in their land and improve productivity, leading to improved livelihoods. Yet land tenure reform in Laos has failed to improve livelihoods and has decreased welfare in many rural areas.²⁶ Poor outcomes such as this can be directly attributed to the land tenure reform program, LUPLA, which has decreased tenure security in its attempt to allocate property rights. This stems partly from the way in which the GOL, donors, and other international actors perceive village formation and organization. Government officials often refer to villages as groups of homogenous households that hold common interests, suggesting that power hierarchies do not naturally occur in the village. A homogenous representation of the village unit lends itself well towards designing one-size-fits-all land tenure policies and allows power to reside at the central level. The result is usually characterized by single households being granted designated, limited plots of land, a system that is not necessarily representative of the historical tenure system in the village nor particularly appropriate to the particular context. For example, where some villages formerly carried out agricultural activities with long rotational cycles and each household had access to a large landbase, access is severely restricted to meet the national guidelines of three hectares of land for rice cultivation per household. Particularly in upland and highland conditions, three hectares is far too little land to provide sufficient rice for an average family. Furthermore, the NTFPs that would grow in formerly harvested lands and supplement village diets are no longer as plentiful due to more frequent rice cultivation on limited lands. Needless to say, in the Lao context, efforts to promote land tenure have not always resulted in the positive impacts envisioned by the international community.

TENURE AND REDD

The international climate community recognizes the potential for REDD to “undermine some of the ecosystem services that forests provide locally, such as providing food, fuel and medicine” to forest dependent peoples by “creat[ing] new incentives for states to restrict these people’s access to forests.”²⁷ Insecure land tenure can make forest dependent people more vulnerable to this risk.²⁸ International consensus believes that the success of REDD in both its environmental and socio-economic goals relies heavily on equitable benefits-sharing arrangements with the communities actively working to conserve forest resources.

In its Readiness Plan Idea Note (R-PIN), Laos identified insecure tenure as one of the primary internal drivers towards deforestation and degradation in Laos.²⁹ Yet current plans for REDD in Laos have neglected to prioritize coordinating a robust effort to reform and implement tenure reform. Current readiness activities are focused on technical aspects of REDD, such as establishing baselines for forest cover, deforestation rates, and measuring carbon stocks. By failing to address not only land tenure, but broader resource tenure, when developing a REDD framework, REDD proponents could be increasing uncertainty and exacerbate power hierarchies which contribute to greater vulnerability of local communities to reduced welfare and increased poverty.

Current REDD activities in Laos, which do not require contemplating access or rights prior to implementation, create a number of incentives for the GOL. First, REDD incentivizes

²⁶ Dahal and Adhikari. (2008). Trends and Impact of Forest Tenure Reforms in Asia: Cases from India, Indonesia, Lao PDR, Nepal, and the Philippines. *Journal of Forest and Livelihood*. 7(1): 19-26.

²⁷ Huberman, D. and K. Lawlor. 2009. “REDD and Human Rights.” In *Rights-based approaches: Exploring issues and opportunities for conservation*. CIFOR. p. 271.

²⁸ Huberman, D. and K. Lawlor. 2009. “REDD and Human Rights.” In *Rights-based approaches: Exploring issues and opportunities for conservation*. CIFOR. p. 271.

²⁹ GOL. 2008. R-PIN Lao People’s Democratic Republic. p. 6.

the GOL to further restrict rice cultivation practices, particularly among the diverse ethnic groups that live in upland and highland areas. Rather than promoting the well being of the poor with payments for environmental services, this will continue to have a “negative social impact by marginalizing the poorest farmers.”³⁰ Second, REDD provides the GOL the incentive to commit to long-term land use plans that may limit the ability of local villagers to access required resources in the future, especially if warming global temperatures cause a shift in production yields. Rapid population growth, limited suitable land for agriculture, and increasing land use change pressures from neighboring countries suggest that Laos may need to become more flexible in its land use planning than REDD may allow. Third, REDD creates fertile conditions for a land or forest race, whereby stakeholders will rush to stake carbon and/or forest claims in order to reap the benefits from payments for avoided deforestation and degradation. The stakeholders that would most likely win are those with the connections, resources, and power to be able to assert their rights early.

While villagers could participate in benefits-sharing arrangements, without a clear delimitation of property rights and, more importantly, resource access, they can easily be shut out. To further elucidate the concept the role that tenure plays in the context of REDD, consider Ribot and Peluso’s Theory of Access. According to Ribot and Peluso, access is “the ability to derive benefits from things” and should be understood more broadly than property; access is a “bundle of powers” rather than a “bundle of rights” that characterizes property.³¹ By granting individual households secure access to natural resources, the GOL would not only enhance the opportunities for benefits sharing between local resource users and the greater society, but would also begin to equalize power relations.

While the GOL may seek to share some of the financial benefits from REDD with local communities, the current political context in Laos is unlikely to allow power sharing. The GOL is hesitant to decentralize any decision-making powers; forest management is better described as *de-concentrated*, where local villages are responsible for implementing policy directives and regulations decided at the central government level. To date, stakeholders in the REDD development process within Laos include only central and some provincial government agencies, donors, and international NGOs. Some smaller pilot projects are being carried out at the village level, which incorporates “participation” from local communities, but civil society is otherwise absent from the national REDD dialogue.

Even without the potential risks that climate change poses broadly for Laos, the risks that REDD alone poses in regards to human security are substantial. When poor people are further marginalized from the decision-making and benefits-sharing process, their livelihoods are disproportionately impacted. This alone should be of sufficient concern to generate more direct attention to issues of access and secure tenure.

PROPOSED RESEARCH QUESTIONS: REDD, CLIMATE ADAPTATION, AND HUMAN SECURITY

As demonstrated in this paper, REDD potentially creates additional uncertainties for households across Laos. Increased uncertainties mean that individuals and communities have less capacity to address stresses to their livelihoods; in other words, their level of human security declines. The limitations and risks associated with REDD directly affect how

³⁰ Cited in Dhal and Adhikari. (2008). Trends and Impact of Forest Tenure Reforms in Asia: Cases from India, Indonesia, Lao PDR, Nepal, and the Philippines. *Journal of Forest and Livelihood*. 7(1): 19-26.

³¹ Ribot, J. and N. Peluso. 2003. A Theory of Access. *Rural Sociology* 68(2): 153-181. p. 153.

communities can effectively adapt to climate change: an incomplete tenure system, poor governance, and unequal power relationships may lead to decreased welfare, increased conflict, and reduced or limited access to essential natural resources. Adaptation capacity is further complicated by Laos' high population growth rate, widespread presence of unexploded ordinance (UXO), and limited suitable agricultural land -- all factors which reduce the physical landscape available to people if they must relocate, expand rural areas, or cultivate more land for food. Without REDD in place, it is likely that even though tenure security is not enhanced and power is unevenly distributed, villagers will maintain broader access to resources given the limited capacity of the GOL to enforce laws. This suggests that REDD proponents carefully examine and confront the power dynamics surrounding forest conservation.

To understand the linkages between REDD, climate adaptation, and human security, I propose the following lines of inquiry for additional research:

- How could variations in property rights systems shift power dynamics to allow for more or less adaptive capacity? What would these variations look like?
- How will traditional coping mechanisms for adjusting to natural shocks to livelihood systems be altered under a REDD framework?
- What are the political and institutional requirements for promoting human security in climate adaptation and mitigation?
- How do the governance architectures of global environmental change interact and impact institutional dynamics across scales and what are the implications of these impacts?
- What are the most appropriate methods for capturing complex causality in both horizontal and vertical linkages?