ECOLOGIES OF RULE AND RESISTANCE:

MAKING KNOWLEDGE, BORDERS & ENVIRONMENTAL GOVERNANCE AT THE
SALWEEN RIVER, THAILAND

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ABSTRACT

This dissertation examines the making and mobilizing of ecological knowledge at the Salween River as part of the Himalayan Uplands in Southeast Asia. The profusion of interest in "knowing" this river has captured local and international attention, particularly in the context of regional energy development. Plans have been made for 16 large dams along the Salween, the longest free flowing river in Southeast Asia. I examine the unfolding processes of planning and governance of the first dam to go ahead, the Hatgyi hydroelectric project. My research questions query how ecological knowledges are made, and by whom, and how they circulate in the context of cross-border dam development and with what implications for ecologies, residents, and governance. My approach to addressing these questions brings together work in political ecology, political geography, science studies, and area studies. I focus on the ways that political geographical concepts including territories, nations, and political borders are made through – and even require – the practices and performances of residents in their everyday life. This includes the efforts to produce ecological knowledge.

In addressing my research questions, I specifically argue that residents play significant roles alongside institutions to make and remake the conditions for development, and are as much involved in producing environmental rule as they are in producing the more expected projects of resistance. This runs in contrast to analyses which envision residents and local resistance subsumed in development projects. It also contributes to literature on the study of upland minority groups, whose residents and ecologies are described as "peripheral" or even as "evading" states. While residents at the Salween are highlighted within this study, I also emphasize the roles and practices of a variety of other actors including environmental consultants, government officials, and activists.

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INTRODUCTION ECOLOGIES OF RULE & RESISTANCE

Ecologies

It was the biggest potato I had ever seen, around the size of a soccer ball. It was one of those

state evading crops that I had read about (Scott 2009). My "host mother" told me that potatoes

like this can keep for up to one year in the kitchen, and even longer underground. She explained

that in Karen language, this local variety of potato is called "neuy", said short and fast. This one

was called "neuy-wa", like me, a white person or "kala-wa".[1] She brought it into the kitchen

after we returned from the riverbank garden to prepare dinner.

We had just returned from planting pumpkins and other vegetables along the river. As I

placed the seeds in the ground, I realised how vast the banks are compared to how they appear

when you pass them on a boat on the river. Fortunately, their garden was already worked over, so

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[1] The majority of residents at the Salween River-border identify as Pga K'nyau (or Sgaw Karen). The ethnic
category of Karen encompasses a diversity of peoples and languages.

the simple task of planting along with the conversation made the work rather enjoyable. Ann, my host mother's sister, sat back smoking her pipe, reminding me that she was smoking tobacco harvested from last season's garden. Ann also made jokes, with big smiles, about how learning these gardening skills would make me a good wife one day. Throughout much of my fieldwork, Ann and I would return to this garden to collect vegetables for cooking meals and watch how the banks of the river continually changed with the seasons.

These riverbank gardens are one example of the political ecologies that are the focus of this study.[2] The image above (Figure 1.1) shows one productive garden on the east bank of the Salween River in Thailand. This river as a whole is shared between China, Burma and Thailand[3] and these gardens are one source of livelihoods and food within a basin that supports an estimated 6 million people (Wong et al 2007). The gardens are not your typical gardens but require residents to understand and work around the river's fluctuating water levels and how they shape local ecologies, climate and the growing season. The banks of the Salween are only exposed each year during the dry season (as early as October into April); in the rainy or "high" season the river inundates these banks, depositing nutrient-rich sediment that helps make the gardens so productive. Many residents at the Salween emphasize that in contrast to paddy rice,

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[2] In this dissertation, I use the term ecologies in two related ways. First, I rely on the term to invoke conventional understandings of physical ecology. This includes fish, riverbanks and river sediments studied in local ecological knowledge projects and the Hatgyi dam environmental impact assessment. Second, I also build on a critique of the long history of defining ecologies, such as the forest, as excluding human interaction. By focusing much of the analysis in this dissertation on the multiple dimensions of ecology, the analysis presented here is intended as a provocation, or complication, to standard notions of what precisely "ecologies" can and does reference. In contrast to exclusion, analysis reveals the ways that local residents, their knowledges and practices are enmeshed in and sometimes articulated through "ecologies". More disruptive to conventional understandings of "ecologies", however, is the acknowledgement of the entanglements and practices of residents, activists, environmental consultants, and government officials which comprise and co-produce ecologies. Expanding the term "ecologies" to include the ecology that happens in meeting rooms and publications, shaped by the work of multiple actors and agents, matters because it has the potential to disrupt the increasingly sedimented nature-culture divide (Haraway 1991, 1992, Latour 1993).

[3] In China the river is called the Nu River and in Burma it is referred to as Thanlwin.

these gardens are "chemical free" and produce vegetables, legumes and tobacco that are

harvested for consumption, sold within the village, and traded with other nearby villages and

refugee camps. Tobacco from this district is a particularly prized crop; traders travel from many

places to purchase it each year.

These riverbank gardens also provide insight into the contestations over ecological

knowledge and authority that have unfolded at and transformed the Salween. The stretch of the

Salween River whose banks are pictured above actually comprises the political border between

the Thai and Burmese nation-states. In fact, the photograph above (Figure 1.1) was taken while

floating on the river-border. The water levels of the river not only shape the planting of gardens,

but also dictate the boundary between the two nations, highlighting the connections between the

river's ecologies and larger political geographies.
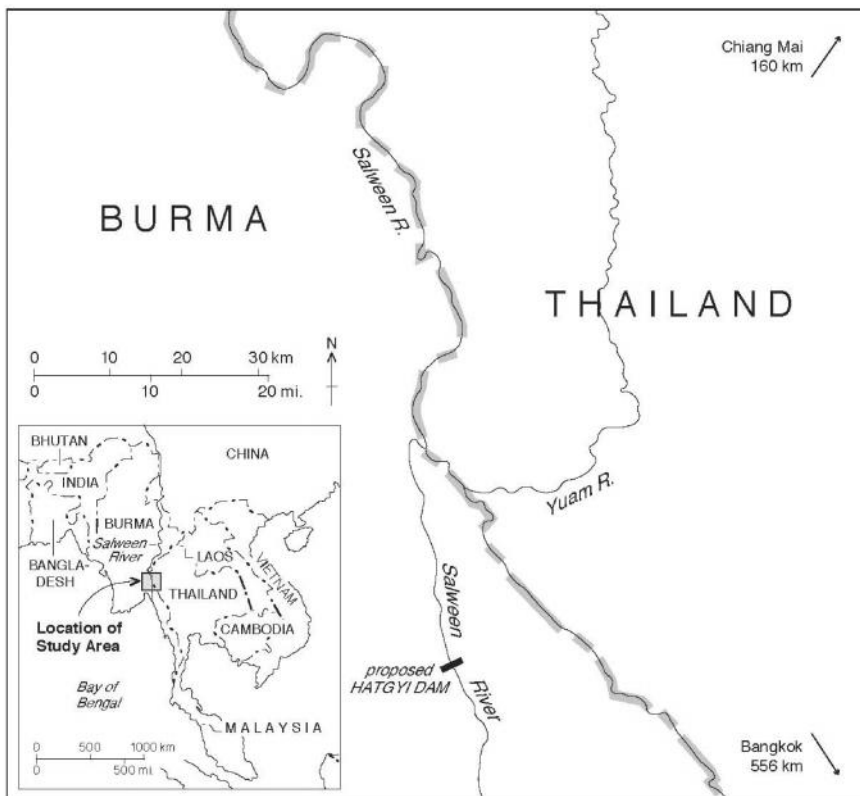
Figure 1.2: Location of Hatgyi dam and study area along the Thai-Burma border.

The river-border with its flows and its gardens has become of increasing concern and interest to states and other institutions and to individuals involved in the planning, development and study of several hydroelectric dams proposed on the Salween River. Sixteen large dams are proposed along the mainstream of the river; five to six of these projects would be located at or near the political border between Thailand and Burma. In this dissertation, I focus on the planning and decision-making processes of the Hatgyi hydroelectric project (see Figure 1.2 Map of Salween Study Area indicating the proposed site of Hatgyi dam), proposed by investors from Thailand, China, and Burma, expected to be the first of the proposed projects on the lower part of the Salween to go ahead.

These dams have the potential to impact the agrarian livelihoods and ecologies of the river basin, and also to transform the political border. Both possibilities have attracted a profusion of interest to the Salween; interest which has taken the form of activist reports, environmental assessments, military surveys, and participatory local knowledge projects. With them has come a continual evolution in methods of documenting Salween political ecologies, this dissertation included.

There is much at stake in the trajectories of knowledge making and development that accompany this case. In addition to the material impacts on the livelihoods and ecologies of the river basin, an important part of what is at stake here are the ways that these ecological knowledges have been connected to (or separated from) the politics, processes and institutions of environmental governance.[4] One of the contributions of this dissertation is its focus on the

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[4] The assertion that the particular articulations of knowledge-making and governance matter, is in line with analysis of the implications of how discredited scientific theories, such as the Theory of Himalayan Environmental Degradation (THED), continue to influence policies governing the management of Himalayan ecologies through selective use of "science" (Blaikie and Muldavin 2004; Saberwal 1998; Forsyth 1996).

myriad of actors involved in making knowledge—this is crucial to understanding the ways that knowledge is mobilized through its enactment in governance processes and through the participation of knowledge holders in the same. A second contribution is to reconsider how concepts and institutions, including territories, borders, scale, and "the village"—categories which have been assumed to exist independent of everyday life or to make up the terrain upon which everyday life plays out—are instead continually remade and re-enacted through the practices involved in making ecological knowledge.

The arguments I present build on long-standing work in political ecology and its intersection with critical development studies. I also draw work from political geography, science studies and area studies into cross-disciplinary conversations about knowledge making and authority. Engagement with these literatures helps me consider and address how the ecological knowledges made at, and about, the Salween River, are mobilized and circulate in the context of cross-border dam development. These conceptual connections also help elucidate what making ecological knowledge means for making subjects, discourses, institutions and identities. To begin investigation, the research questions developed through this study include:

> In the context of dam development at the Salween River, Thai-Burma border, by and for whom is ecological knowledge made? How is it used or mobilized, and for what purposes?
>
> What particular visions of order or nature are enabled, or made less possible, through these connections that the making of environmental knowledge and governance facilitate?
>
> What kinds of territorial claims to resources or authorities are produced or transformed through these knowledge making practices?

The evolution of these research questions is expanded on in Chapter 2, *Research Design and Methods*.

In addressing these questions, I specifically argue that residents play significant roles alongside institutions in making and remaking the conditions for development, and are as much involved in producing environmental rule as they are in producing the more expected projects of resistance. This runs in contrast to analyses which see residents and local resistance as simply subsumed into development projects. It also contributes to literature in Southeast Asia on the study of upland minority groups, whose residents and ecologies are typically described as "peripheral" or even as "evading" states (i.e., Scott 2009, Michaud 2010). While residents at the Salween are highlighted within this study, I also emphasize the roles and practices of a variety of other actors including environmental consultants, government officials, and activists.

While part of a broader academic conversation, these questions also draw on my experience working in various capacities as researcher, teacher, environmental organization staffer, and activist. In my experiences and as part of this overall dissertation, I assert that knowledge making is related to authority and that it *does* matter, in that there is much at stake for those who make knowledge, for those who make claims with knowledge, and for those about whom knowledge is made. This matters not only in the straightforward ways in which we might imagine those with more power making decisions for or over those with less or little agency, but making knowledge and expertise often matters in more unexpected, entangled ways. I explore this through an approach that combines methodological insights from science studies with critical approaches in geography. The result is a conceptual approach that considers the ways that knowledge and authority are co-produced, as discussed in the following section.

Conceptual approach: at the intersection of science studies and political ecological geographies

The arguments and analysis presented here conceptualize institutions and authorities as constituted through the performances and work of multiple actors. This approach facilitates an understanding of the multifaceted and contradictory work to remake and resist development and institutions, and offers a way to study these connections "from the bottom up". Drawing work in political geography and political ecology into conversation with scholarship in science studies, this approach highlights that institutions such as states and borders, in their recognition and their daily operation, are accomplishments that require work and that must be maintained through their continual enactment and expression at multiple scales and sites. As part of my commitment to place-based research, I also delve into the rich Area Studies literature to ground my arguments, specifically focusing on the studies of the Upland Himalayas of Southeast Asia, within the region that some scholars have termed "Zomia" (van Schendel 2002, Scott 2009, Michaud 2010).

In presenting this overall approach, I provide an overview of key literatures in order to flag particular engagements and contributions which I develop in subsequent chapters. I detail in this section how I draw from these four fields (political ecology, political geography, science studies and Area Studies) and how I bring them into conversation with one another in order to bring new insights into the study of ecological knowledge making and the everyday practices of environmental governance. In addition, within each field I indicate what I build on and what will be taken up in more detail in the individual chapters. These chapters, with the exception of Chapter 4, were written for publication in journals. Because of this, each chapter can "stand alone," and much of the elaboration of conceptual ideas is elucidated in these chapters. What follows in this introduction outlines the conceptual framing of the project as a whole.

Political ecology: Nature, Society, Power

As a broad field, political ecology provides a background for this dissertation. Political ecology addresses the multiple aspects of socio-environmental change; this includes the political and ecological as well as economic, cultural, and social dimensions. However, precisely what constitutes the field has been much debated (Watts 2000, Walker 2005, 2007, Vayda and Walters 1999, Forsyth 2008, Basset and Zimmerer 2004). As a very general characterization, political ecology approaches inquiries about nature and ecology with the understanding that the problems, solutions, and even how we frame those problems and solutions, are related to power relations (Robbins 2012, Vandergeest and Roth *forthcoming*).

The main tenets that I engage with are the field's attention to resource access (Peluso 1995, Peluso and Ribot 2003, Vandergeest and Peluso 1995, etc), its sympathetic critique of participatory empowerment and development (Vandergeest and DuPuis 1996, Brosius 1999, Li 2000, Dove 2006, Li 2007, Tsing 1999, Forsyth and Walker 2008), and more recent conceptual engagements with post-structuralism that examine how ecology and nature are not existing categories, but are themselves also shaped through power relations (Braun and Castree 1998). I also build on political ecology's emphasis on social justice through understanding the practices of local resource users, an important tenet for addressing the material impacts of pressing research issues (Forsyth 2008). This is reflected in my research questions, and in my grounded analysis of the material impacts of Salween River development.

Within political ecology scholarship in Southeast Asia, critiques have also been levelled at the work of social movements or non-governmental organizations (Vandergeest and DuPuis 1996, Brosius 1999, Li 2000, Li 2007, Tsing 1999, Dove 2006, Forsyth and Walker 2008), particularly in their representation of local or indigenous people. These points of critique illustrate both the

perceived divide or categorization of knowledge, and the tensions among critical scholars around perpetuating such a divide, raising questions about how knowledge is characterized, classified and how this also raises questions about representation. I contribute to these debates by drawing on work in science studies, such as "co-production" (Jasanoff 2004), that examines the ways that knowledges and institutions are made together (discussed in detail below).

Also critical in my approach to studying ecological knowledge are the debates in political ecology that have pushed our understanding of what constitutes local, indigenous, and scientific knowledge (Agrawal 1995, Forsyth 1996, Berkes 1999, Tsing 1999, 2005, Li 2001, Fairhead and Leach 2002, 2003, Santasombat 2003, Roth 2004, Nadasdy 2005, Lowe 2006, Cameron 2012). While early work in anthropology characterized many local or indigenous knowledge systems in Southeast Asia and elsewhere as practice-based or even "fixed in time and space" (Agrawal 1995), more recent scholarship has shown that local knowledge systems are *simultaneously* embedded within practice, empiricism, and theory (i.e., Scoones and Thompson 1994; Escobar 1999 and responses), suggesting that the boundaries between 'local' and 'scientific' knowledge are porous and not all that distinct.

Political ecology has made moves to address these questions and debates surrounding the "local-scientific" divide by building on work in science studies. Insights engaging work in science studies (Latour 1999, 2005, Haraway 1991, 1997) have been useful for political ecologists in thinking about how we "know nature", particularly in terms of the categories and divides created, is an essential part of understanding and addressing problems of environmental management or governance (Forsyth 1996, 2003, Vandergeest 1996, Braun and Castree 1998, Tsing 2005, Lowe 2006, Vandergeest and Peluso 2011, Goldman et al 2011). For instance, Goldman et al. (2011:2) argue that "environmental politics are a "politics of knowledge" and in order to understand

complex political ecological issues we need to address (and collapse) the separation between the ways that knowledge is produced, applied, and circulated.

Not only is making ecological knowledge about influencing decision-making or ecologies, but has implications for the making of subjects and identities (Tsing 1999, Li 2000, Agrawal 2005a). In this dissertation, I take up the ways that subjects are made through knowledge production in Chapter 4. In this chapter, I contribute to this debate by also pointing out how, in the case of Villager Research, relying on and mobilizing the subject "villager" signals a particular kind of political authority. In Chapter 8, I engage with and contribute to the study of identities and knowledge making, particularly in feminist political ecology, by articulating questions about the ways that "knowledge in the making" is also constitutive of gendered and racial identities (Haraway 1997, Sundberg 2004).

Overall, work in political ecology produces a sympathetic critique which takes into account the histories, and futures of resource users that I build on to make my arguments about how ecological knowledge and authority are co-produced.

Political Geography: resource politics, borders, states and scales

In political geography "critical hydropolitics" (Sneddon and Fox 2006) has emerged as a key frame for study of transboundary waters that engages critical geopolitics (i.e., Dalby 2003, 2005, Sparke 2000, O'Tuathail and Dalby 1998) to understand the interaction of geopolitical, economic, social, and ecological processes and their associated power relationships (see also: Swyngedouw 1997, 1999, 2007, Bakker 1999, Sneddon 2002, 2003, Norman and Bakker 2009). Hydropolitics both builds on and challenges conventional geopolitics, a field more conventionally focused on disengaged, state-centered views (i.e., resources belonging to

sovereign states). Highlighting the tensions around and within water management, hydropolitics also represents a significant area of engagement between political ecology and political geography (Sneddon and Fox 2006, Robbins 2003). I bring the aforementioned work in political geography on hydropolitics to contribute to political ecology's conceptualization of scale. In Chapter 7 in particular, I expand on how scale is produced, and not "given" or simply chosen, as part of the environmental assessment process for transboundary development of the Salween River.

In contrast to political ecology, however, work in political geography has been critiqued for its lack of engagement with more ethnographic approaches (Megoran 2006). As political geography's engagement with ethnographic methods deepens, innovative approaches are being developed to approach studies of "the state", political borders and boundaries. This has been particularly relevant for the field's approach to a taken-for-granted idea of a "central state." As a result of continual debate, political geographers have put forth a variety of approaches to studying the state as both practice and performance (Mountz 2010, Salter 2011, Johnson et al 2011). These insights have been part of developing critical insights into taken for granted understandings of the state, territory, and political borders. The analysis presented in this dissertation builds on and contributes to scholarship in political geography in both these aspects – through presenting an ethnographic study of institutions, including the political border (Chapter 6).

Such an approach highlights the possibilities for the institutions such as the state and the border to be made in different ways and through the work of multiple actors. This move can be seen as part of a broader shift in scholarship towards treatments that do not envision a monolithic state (Painter 2005, Mitchell 1999, Abrams 1988) and that highlight state-making and border-

making practices as part of our daily lives (i.e., Heyman 1995; Paasi 1996; Donnan and Wilson 1999; Nevins 2002; Balibar 2002; Newman 2006; Walters 2006; Doty 2007; Mountz 2010; Reeves 2011, Johnson et al 2011). In Chapter 6, I contribute to these debates by further developing the concept of "borderwork" (Rumford 2008) in connection with work in science studies to highlight the ways knowledge making as practice also constitutes important borderwork. I also bring studies of border residents in Southeast Asia (i.e., Baird 2010, Turner 2010, Walker 1999, Sturgeon 2004, 2005) into more directly conversation with political geography, as I discuss further in Chapter 6.

Science Studies: Knowledge practices as nature-society geographies

To conceptually and methodologically highlight the notions of practice and performance, I bring insights in science studies to speak to the aforementioned work in political geography and political ecology. I build on the connections between science studies and political geographical scholarship, particularly in their respective emphases on the actions and practices of a variety of actors that work to produce or continually re-enact institutions. Work in science studies has made two important contributions that I engage with here: *co-production* (Jasanoff 2004; Latour 1987) and *knowledge as practice* (Pickering 1992).

Scholarship by Sheila Jasanoff is a significant part of my conceptual approach. While Latour introduced the term "co-production" in *We Have Never Been Modern* (1993) showing how the nature-culture divide was created, I build on Jasanoff's conceptualization of co-production as the mutual construction of knowledge and visions of appropriate order (Jasanoff 2004: 2). She (2004: 6) identifies four sites of co-production that I aim to contribute to in this dissertation: making identities (Chapter 8), making institutions (Chapter 6), making discourses (Chapter 5), and making representation (Chapter 5).

Jasanoff's approach builds on earlier "actor-networks" approaches (Callon 1986, Latour 1987, 1993) that study translation, the process of "co-producing" or building the network to support explanations or narratives, such as the nature-culture divide.[5] Jasanoff's work has expanded the scope of science studies, particularly in her emphasis on understanding how not just "science" but knowledge, policy, and social order are not made independently but are "co-produced" (Jasanoff 2012; Jasanoff 2004; Jasanoff and Martello 2004). This approach acknowledges the ways that power resides not only in formal structures or institutions (states, bureaucracies, commissions, expert bodies, etc.) "but also in fluid and constantly renegotiable arenas that may allow the emergence of new knowledge societies representative of alternative configurations of actors" (Forsyth 2004: 1708).

Jasanoff's work is particularly useful because it deliberately engages with knowledges made outside the laboratory as a contribution to social studies of science and technology. She argues that assuming "science" happens in a lab is problematic and limiting (Jasanoff 2012). By focusing on participatory knowledge projects alongside environmental assessments and mapping exercises, this dissertation follows this line of thought to push the boundaries of what constitutes 'social studies of science.'

The analysis presented throughout also builds on these co-production arguments in the ways that envision possibilities, or in Foucault's words, "power produces; it produces reality" (1995: 194). Foucault has shown how the modern sciences are part of the formation and

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[5] While I am not following a genuine Actor Network Theory (ANT) approach here, it is worth noting that Callon's (1986) work on the process of translations identified four distinct phases, and these phases have also received scholarly attention in science studies, providing insight into how explanations are built and stabilized. The four phases or "moments" are problematisation, interessement, enrolment, and mobilization (Callon 1986; see also Fujimura 1992). A note on defining interessement: Sneddon usefully explains it as "how one particular entity, for example, scientists, attempts to define the roles of all other actors using technologies, texts, discourses, etc" (2003: 2237). An important part of this is the use of a "technical device"; see also Chapter 5.

evolution of practices of government and rule: ordering, disciplining, administrating, and surveilling territories and populations (1994, 1995). Foucault's work also emphasizes that power is diffuse (1991, 1995) and that multiple actors take part in the work of governance and rule.

While drawing on Foucault's work, I approach this research more closely following science studies such as the work of Jasanoff, Latour, Mitchell, and Haraway, who while building on the work of Foucault, question his methodological assumptions that divided society and nature (see discussion in Fairhead and Leach 2003: 15; also see Braun 2000). Such an approach works to expose society and nature as co-produced and non-distinct through, for example, the tracing of actors and assembling of hybrids (Latour 1993, 2005) or cyborgs (Haraway 1992).

Co-production as an approach "provides, following Latour and Foucault's later work, the possibility of seeing certain 'hegemonic' forces not as given but as the (co-)products of contingent interactions and practices. These insights may, in turn, open up new opportunities for explanation, critique and social action" (Jasanoff 2004: 36; see also: Fairhead and Leach 2003: 14). It is these insights and opportunities that the arguments within this dissertation aim to build on and contribute to.

I also draw upon science studies' approach to "knowledge as practice" (Pickering 1992, Latour 1987, 2005). In considering knowledge as practice, emerging work in science studies has also provided important critiques of other foundational notions of the state and its knowledges (Mathews 2011, Tsing 2005, Jasanoff 2004, Jasanoff and Martello 2004). When contrasted with scholarship in development studies that has considered institutional or state knowledge and power as monolithic and in opposition to local knowledges (i.e., Ferguson 1994, Escobar 1995, Scott 1998, Anderson 1983), the study of knowledge as practice reveals how these foundational studies accept the "state" and its knowledge uniformly and at face value. Mathews contends that

such understandings of the state "are less useful than a formulation of knowledge as practice and performance" (2011: 14) because it fails to understand that the state is something that is 'accomplished'.

This failure is achieved by not recognizing that institutions other than the state (Foucault's prisons, schools, etc.) "also have the power to create new ways of "reading" people" (Jasanoff 2004: 28). Instead, Mathews builds on work in science studies to attend to the "informal networks of patronage by which officials, politicians, and ordinary people seek to appropriate or modify the power of the state" (Ibid: 14, see also: Tsing 2005). In this vein, I also endeavor to critically examine the ecological knowledge of multiple actors, including consultants, "non-state" institutions, and individuals, in dam development.

Mitchell's work on experts and development is also important for my work and shows what is at stake in co-production and how we understand it (2002). Like other recent scholarship in science studies (i.e., Mathews 2011, Jasanoff 2004), Mitchell is interested in dismantling taken for granted concepts and institutions, particularly the "economy". He argues that an important aspect of knowledge production is that "expert knowledge works to format social relations, never simply to report or picture them" (2002: 118).

This dissertation builds on these critiques and connections, and adds to the burgeoning work that brings science studies into conversation with both political ecology and political geography by concentrating on the political ecological implications of the co-production of knowledge and authority. My argument that the political border is negotiated and remade through knowledge making practices (Chapter 6) is one way that my research contributes to larger debates regarding how borders, territories, states and knowledges are made. In Chapter 8 *Who knows the river?* I specifically draw out how, in addition to the co-production of state

authorities and institutions (Chapters 4 and 5), identities and difference are also constituted through these practices of knowledge production and mobilization. These insights from science studies are an important part of a research approach that has allowed me to examine the ways, for instance, that villagers participate in 'state' activities.

Area Studies: Himalayan Uplands of Southeast Asia (Sometimes referred to as "Zomia")

The contributions of this dissertation reflect a sustained engagement and commitment to a particular place. At the same time, I conduct research in a place that has been at the centre of debates and contributed to broader understandings of nations and states, particularly the work of Ben Anderson (1983/2006), Thongchai Winichakul (1994), and James C. Scott (2009). Additional "regional studies" contributions that I engage with include scholarship broadly categorized as political ecology that has presented perspectives of resource users from the borders or edges of states, rather than from the center, which is often associated with state rule (Sturgeon 2004, 2005; Walker 1999; see also: Baird 2010). I build on these works, particularly in the ways that Sturgeon is better able to complicate conventional static notions of "border" and "center" through the perspective of ethnic peoples living, crossing, negotiating and constructing borders. In Chapters 4, 5, and 6 in particular, I build on this rich literature as part of a move to more seriously consider the contributions of this scholarship from Southeast Asian and other (post)colonial contexts (i.e., in addition to Europe and North America).

In addition, the Himalayan uplands have been an integral site within the construction of and studies of "Zomia." Zomia is considered a large region of Asia that was largely ignored by scholars post-WW2 because it was "politically ambiguous". van Schendel (2002) explains that this region – largely the borderlands or uplands (as opposed to the heartlands) – was both invisible and liminal, these uplands lacked strong central state structures and have been more or

less framed as peripheries by scholars, particular scholars of specialists within 'Asia'. Geographically this would include the Salween border region. The term has been made more popular by Scott's (2009) arguments that rather than being "left behind" these peripheral regions have left the state behind or have "evaded" the state. While Scott makes the disclaimer that his argument only applies up until the 1950s many scholars have found his arguments useful in the present day. I take up the contributions and legacies of this work directly in Chapter 6 where I argue that one implication of this legacy of positioning upland peoples as resisting or peripheral to "the state" has produced a framing that is dismissive of their work to enact and remake institutions, like the state and its borders.

Intersections

I emphasize the process of making and mobilizing ecological knowledge, including the contestations and negotiations between different actors to legitimize their own knowledge and visions of order. Instead of approaching various actors' practices as distinct—or treating practice, performance and discourse as ontologically separate—I bring the insights of political geography and political ecology together with science studies' instruction to consider how different actors work together. This intersection allows an understanding of the ways that these actors work not only to challenge the institutions and conditions for authority-making and development, but to productively transform it. I expand on these methods in Chapter 2.

Motivations: What's at stake?

This research and the arguments I present matter academically and to me personally because many of the arguments I have seen and heard re-presented by academics, government officials, international and domestic NGOs about 'upland residents' or 'borderland residents' in Southeast

Asia position residents as fitting within one of two static narratives. As I will draw out more below, these two narratives—while divergent—enable similar interventions or 'solutions'.

The first narrative positions residents rather romantically 'against the state' and sometimes, in harmony with one another and with nature. For instance, I contend that work by Scott (2009), Michaud (2010) and Delang (2003) over-privilege stories and instances of resistance as a source of agency for local resource users. While Scott, for instance, acknowledges that states are constructed by their edges as well as by their centers, what this line of inquiry is less interested in are how those who also participate in states remake those institutions.[6]

The implications, as I lay out more concretely in Chapter 6 *Borders as Work*, are that this discounts residents' work, roles and motivations for remaking institutions, but also it continues to position residents as others instead of agents who work, alongside other actors, to invest in institutions, including the political border.

The second narrative positions residents as interested, "good" capitalists who engage with state or other institutions – like political borders, markets or government agencies – for their own or their family's economic gain (Bryant 2002, Turner 2010, Formoso 2010, Walker 2003; this would include, to a lesser extent, Forsyth and Walker 2008).[7] Formoso, for instance, in critiquing Zomia argues that "promoters of Zomia":

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[6] Taking a longer view, this scholarship on Zomia is itself a critique of more historical work that focused state centers and as critiqued by Walker (1999) among others. I address this more directly in Chapter 6.

[7] Regarding Forsyth and Walker's position, the critique has been that they overly focus their own criticisms on environmental groups, and leave market based approaches less examined or positioned as an obvious alternative. For instance, Chris Baker's review (2008) arguing that "Forsyth and Walker promote a sort of neoliberal environmentalism." While in Philip Hirsch's (2008) assessment, "the authors' demonising of environmental narratives raises questions regarding the target of critique. …Where the narratives become a problem in themselves is when they take phoney science and victimise innocent groups who are marked out as culprits. Clearly this use of narratives is what the authors have in mind as their own main target, but the exposition in the book tends to dwell on narrative per se as the evil to be expunged from environmental science, politics and policy."

limit their perspective to upland communities of the past. Entirely focused on the ethnohistory of mountain peoples, they convey the idea that they do not exist any more in the features that characterize them in contrast to state societies....Following such an approach, Zomians tend to alliterate with zombies: that is, destructured peoples whose adaptation to modernity is uncertain. In fact, these peoples cannot be considered as 'the last of the Mohicans'. They are certainly more integrated in local nation-states than before, but they fight with new tools to maintain their specific identities. (2010: 316)

While this critique and the narrative it presents might be seen as exposing the fictions of the more 'romantic' narrative, in my assessment both narratives are inadequate to understand the ways that states, institutions, villages and identities are made and remade together, with and through a variety of motivations. The key difference between this approach and my own is that Formoso sees the "state" as a disconnected actor, disconnected to upland communities. Trying to demonstrate the state as an institution in need of continual re-assurance and re-enactment, or— the political border as an 'institution' made up of a network of actors—the practices and mobilization of knowledge production are key to understanding this network.

Both of these two narratives present particular ideas about relationships between states and villages in "Zomia" and throughout Southeast Asia. This second approach presents a more modernist or managerial narrative about the ways that villagers-states are conceptualized. I argue that building on work in science studies makes visible a more nuanced set of relationships between institutions and individuals, particularly because of the insights afforded through a focus on co-production and practice. The assessments and arguments put forth in my research are a modest attempt to be critical of both of these state narratives and associated solutions or interventions which advocate for or against outside market and state intervention. I also endeavor to consider and present the multiplicity of outcomes, narratives and voices that were presented throughout my fieldwork. This attempt, in turn, builds on work by Tsing (2005), and more recent work by Mathews (2010), that focuses on the *possibilities* of co-production. Both scholars aim to

provide the sometimes messy details of ethnographic data with a methodological approach incorporating insights from science studies.[8] I contribute to this work by presenting ethnographic tracing of villagers, consultants and activists in their struggles to produce and circulate ecological knowledge, highlighting both collaborations and contestations that emerged in my research.

Finally, more recently, scholars writing about Southeast Asia (Springer 2013, Hengsuwan 2012, 2013, Decha 2006, 2007) have engaged Agamben's work (2005) to write about issues of displacement. One scholar, also researching the Salween river-border has presented arguments about "border peoples" through an engagement with these literatures, concluding (in contrast to my own arguments) that:

> The border people recognise that their lives are in a state of real naked-ness, that they are powerless and vulnerable and that no one can protect them from threats and violence. These incidents confirm that they are people living 'naked lives' (Hengsuwan 2013: 118).

His assessment builds on a literature that directly engages with critiques of property and law, and that envisions that the "the struggle to create the nation-state is …a struggle for the monopoly on the means of violence" (Springer 2013: 611; see also Blomley 2003, Hengsuwan 2013).

I am interested in understanding these approaches further, particularly in what insights they offer into the ways that sovereign authority is produced and the ways that people are working against state "abandonment" (and really, how to reconcile different understandings of power, in this case Foucault's more "diffuse" understanding of power, as compared to Agamben's

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[8] While I build on these approaches, I depart from Matthew's arguments on the production of 'intentional' ignorance and bureaucracy to miss a big part of the process of making knowledge – that many points and perspectives are left out or slip out, [not necessarily intentional] . Instead I see the production of ignorance as underscoring that knowledge is *always* situated, partial and incomplete (Haraway 1991).

"sovereign" power). However, as part of this dissertation I do not directly engage with this work because it has produced disempowering claims about the people who, I would argue, are important actors in performing the nation-state. This is seen, for instance, the use of vocabularies and arguments that conjure a "powerless", "vulnerable" and insecure individual. In fact, I believe this is an important part of Butler's critique (2006: 68) of Agamben.[9] The claims about border people presented in such work represent an important part of the narrative of Southeast Asia's so-called "upland" peoples that I aim to constructively disrupt.

Organization of the Dissertation

The dissertation is divided into four sections. Section 1, *Introductions,* includes this introduction, Chapter 2 where I further explain research design and methods, and Chapter 3 *Stories of the river-border* which backgrounds the particularities and stories of the Salween River-border. Sections 2-4 include chapters that present the main arguments of the dissertation. With the exception of Chapter 4, they have been prepared as journal articles and are included in this dissertation in a revised form. Because these chapters were written as journal articles each one presents a conceptual discussion and contribution on particular aspects of political ecological significance.

In Section 2, *Maps and Promises*, Chapters 4 and 5 focus on the ways that the nation and the village are re-imagined through the practices of making ecological knowledge and in processes of environmental governance. Chapter 4 titled "The Village/r" is most explicit in its aim to contribute to Area Studies/Southeast Asian Studies. The argument presented in this

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[9] In particular, Butler notes that claims such as bare life "do not yet tell us how this power functions differently…the suspension of the life of a political animal, the suspension of standing before the law, is itself a tactical exercise, and must be understood in terms of the larger aims of power" (2006: 68). Foucault also distinguishes that it is not 'violence' but 'power' that produces (1982: 790).

chapter builds on a wealth of research in political ecology, and makes the case that while Villager Research aims to document riverine ecologies, it is also about making villagers. This chapter details the ways that the "villager" is deployed in a variety of significant ways in and outside of the development process – not least through knowledge making activities (i.e., "Villager Research"), advocacy, and state-led "stakeholder consultations with villagers". This chapter also provides a brief history of the villager in Thailand and presents examples of Villager Research in practice which help to introduce practices and portrayals of Salween residents considered in later chapters. While immediately relevant to scholars of Southeast Asia, I also argue that the ongoing debates in Thailand regarding "the villager" are relevant to consider in other political ecological contexts, particularly regarding the ways that social-political-analytical categories are made through place (Pigg 1992) and how subjects and knowledge are co-constituted (Jasanoff 2004, Tsing 1999).

Chapter 5 titled *Maps and Promises* focuses on the ways that Thai nation is reimagined through environmental governance and development, and the ways that residents are enrolled in both development and reimagining the Thai nation. Drawing geographical critiques of mapping into conversation with work on the ground-breaking scholarship which contributes to geographical understandings of the nation that have Thailand as their center, *Imagined Communities* and *Siam Mapped*, I consider the role of dam development, not in its infrastructure but in the promises it makes and what these promises, made alongside and inscribed in maps, accomplish for the nation. I examine maps and promises together by engaging with work in science studies on enrolment and inscription. As a contribution to political ecology and work in geography more generally on mapping, I argue that maps can be conceptualized as inscribed promises which enrol wider audiences in imagining development and themselves within (or without) the national community.

Section 3, *Making Territories*, specifically focuses on the practices of making borders and creating geographical scales. The first of these chapters, Chapter 6 *Borders as Work*, demonstrates how the work of multiple actors—residents, activists and environmental consultants in particular —co-produce the political border through their own knowledge practices and performance, their own "borderwork". This is a contribution to border studies in political geography in its innovative conceptual approach, building on science studies, but also is a contribution to the study of borders in Southeast Asia. I argue that a close examination of the "work" of the border by those residing and navigating it reveals their efforts and investments in maintaining the political border in contrast to a wealth of studies that would dismiss these efforts for a focus on resistance. This is not an argument *against* resistance, but rather a call for acknowledgement that rule and resistance are made together. This chapter is forthcoming in *Political Geography* and while the core arguments remain, the framing of the chapter has been adjusted to better fit within this dissertation. The second of these chapters, Chapter 7 *Scales of Assessment*, focuses on the EIA process as an overlooked set of ecological knowledge practices, and the work that it does to produce scale as part of environmental decision-making. In this chapter, I contribute to broader debates on scale in the environmental impact assessment process which have largely incorporated analysis of scale without engaging debates on scale in human geography which consider scale as process, not akin to "level of analysis" or simply a "delineated space" but that incorporate both spatial, temporal and even territorial elements. This chapter also makes a contribution to the study of EIAs as significant topic worthy of further attention. In line with the overall approach of the dissertation, I do not solely consider the EIA text but the role of multiple actors and texts as part of the EIA process. Parts of Chapter 7

comprise a paper under revision for *Conservation and Society.* The chapter as it is included here

has been revised by reframing the contributions to better fit within this dissertation.

The final contributions of the dissertation are presented in Section 4 *Who knows the river?*

This single chapter considers the ways that difference matters in making claims with knowledge

and about expertise—and the ways that these practices of making knowledge are bound up with

producing identities and subjectivities. While Chapter 4 is largely a sympathetic critique and

assessment of one participatory knowledge project called Villager Research and an argument for

the villager as a strategically and constitutionally useful political category, Chapter 8 titled *"Who*

knows the river?" On knowledge, expertise and experience of riverine ecologies returns to the

project of making Villager Research with a more critical eye and ear to consider this category of

villager in terms of difference. In particular, I call attention and ask questions about the ways that

gender and race/ethnicity influence and are influenced by local ecological knowledge projects

and development decision-making processes. "Who knows the river?" is a question made more

relevant in its position in the dissertation after my main arguments on how borders, boundaries,

states and nations, are remade. This line of inquiry poses additional questions about the

implications for individual and group identities and subjectivities of ecological activities which

remake rule alongside resistance. However, presented as a set of questions, this chapter is more

tentative and less declarative in its contributions. The analysis and questions build on insights

from feminist political ecology and science studies (Gururani 2002a, 2002b, Elmhirst 2011a,

Sundberg 2004, Haraway 1997), particularly those works influenced by post structural

understandings of identities and subjectivities as performed and performative. The focus on

performance in this chapter also underlines this dissertation's overall goals of focusing on the

micro-practices of multiple actors and the ways these practices and performances relate to (and matter to) political ecological outcomes, discursive and material.

Finally, in Chapter 9, the conclusion, I reflect on the promises and arguments made throughout the dissertation.

CHAPTER 2 RESEARCH DESIGN AND METHODS

"Ethnographic fragments ask us to pay attention to the details. …Some fragments are able to make themselves look whole. Honoring the fragment means acknowledging this power but not accepting it as a done deal. Through fragments, ethnographers can immerse themselves in the contests and engagements of the present." - Anna Tsing (2005: 271)

My research design and methodology are inspired by Anna Tsing's tracing of global connection and her re-presentation of ethnographic fragments that focus on the potential of relationships and connections to produce "new cultural and political configurations that change the arena of conflict" (2005: 161). This "change" is presented in contrast to revisiting more well-travelled narratives that might approach these cultural, political and ecological configurations as static, in turn overlooking the potential for transformation in the constellation of actors, institutions, and ecologies. As I conducted investigation into the ways that knowledge, territory, resource claims to and about "nature" and the river-border are continually made and remade, I often returned to Tsing's words which push scholars to consider the possibilities of how these practices and configurations might be made differently. While these transformations are important to highlight on their own, in addition I also consider how these transformations are the results of long struggles and how they can shape material outcomes.

However, presenting these multiple fragments as part of presenting one overarching argument within a single dissertation has been challenging. I was challenged by reviewers of Chapter 6, for instance, to present a more coherent "story" for publication and was asked for "less": less detail, less explanation, less of my own position/voice within the story. This feedback produced a stronger argument for journal publication, but also inspired me to present these fragments in a legible way that pushes conceptual and narrative boundaries. This included making a case not only about political borders but for making an argument for including ethnographic fragments as part of political geography, where participant

observation has been "neglected" (Megoran 2006; see also Herbert 2000 regarding a paucity of ethnographic methods in Geography more generally).

In practical terms, I took very detailed observations and notes of all aspects of this research: semi-structured and informal interviews, participant observation at meetings and public hearings, in addition to the recording of issues that I experienced navigating the research process both in and out of the field. These components, then, are assembled as part of my tracing of the ecological knowledges of the Salween river-border. In other words, one of the ways that I operationalized the tracing and representation of these fragments was through paying attention to detail and always recording observations. I also focused on what themes developed in ethnographic data and presented those fragments which best raised questions, interruptions and conjunctures to invoke these themes.

As part of an effort that builds on approaches to studying science, including methods to trace practice discussed by Tsing (2005, see also Latour 2005), I designed this research plan and employed ethnographic methods which complement the conceptual framework's focus on "practice" and co-production presented in Chapter 1. To this end, what I present within the sections on research design and methodology is two-fold. First, I provide details on my research design including: the precise ethnographic methods employed at multiple sites, languages used and the role of research assistants, as well as an inventory of the interviews, locations, and texts in this research to serve as a reference point for the ethnographic fragments I present in the following chapters. Second, I describe how analysis and writing was accomplished and discuss my research positionality and limits to research.

An approach to ethnographic research: tracing empirics

As part of an ethnographic approach, I conducted participant observation in multiple sites from September 2010 to August 2011, in addition to preliminary fieldwork carried out in

2009 [see Research chart at the end of this chapter]. Alongside participant observation, I reviewed documentation and carried out semi-structured interviews. I have included the rough topic of questions as an Appendix to the dissertation (see Appendix A: Interview questions).

While working with an anthropologist for my masters research in Thailand, I was initially introduced to ethnographic methods with an emphasis on spending long periods of time in the village along the lines of her "Chicago School" style of training which emphasizes language proficiency and dedicating time to understand "the village" as part of producing quality scholarship. While much more established in anthropology, geography has been expanding its use of ethnographic methods. Arguing for this increase, Herbert (2000: 550) explains that when compared to other types of qualitative methods, ethnographic research can better "illuminate the relationships between structure, agency and geographic context." He emphasizes that the difference with other qualitative methods, like interviews, is that ethnography "examines what people *do* as well as what they *say*" (2000: 552). This kind of approach is also an important component of the work I draw from (Tsing 2005, Lowe 2006, Mitchell 2002, Mathews 2012, Li 2007). For instance, an important facet of Li's arguments (1999, 2007) about the disparity between the goals of development, as related to development as a project of rule, and the way that development projects play out are rooted in an overall ethnographic approach that focuses on the practices of development (see also: Hart 2004, Moore 2000).

An important facet of the methods that I employ stems from ethnographic approaches to studying science, including "tracing" that I mentioned above (Tsing 2005, Latour 1987, 2005). Latour explains that, "It should be the simplest thing in the world....[but] there is nothing more difficult to grasp than social ties. It's traceable only when it's being modified" (Latour 2005: 159). The difficulty that Latour notes has to do with ontological questions of

what exists and if things can exist before their inscription or performance. Therefore, when "tracing" connections between different actors – for instance, residents at the Salween, activists, consultants –the empirical moments, performances and enactments in and of the research are important to study in addition to their "traces" in texts.

I also note that scholars have expressed concerns about how actor-oriented approaches which focus on practice, such as actor-network theory (Callon 1986; Latour 1987, 1993, 2005), can lend exceeding emphasis to "the autonomous intentionality of conscious subjects, their interpersonal interactions, and the ways they may actively strategize to represent issues in certain ways and forge alliances in promoting them" (Fairhead and Leach 2000:26). Fairhead and Leach note that such an approach can under-play the broader structural features or continuities. Recognizing these critiques, the approach taken here is a mix of tracing contemporary "villagers" at work, in addition to positioning their work within a longer history and context that has sought to define the characteristics of the village over time.

Research Questions

I began my research with the understanding that I was working with a set of theoretical concepts and assumptions, and that I was working to address a set of research questions. These questions – which I detail below – were rather open ended and over the period of research, aspects of these questions changed.

The three research questions I aim to address in this dissertation are:

1.   In the context of dam development at the Salween River, Thai-Burma border, by and for whom is ecological knowledge made? How is it used or mobilized, and for what purposes?
2.   What particular visions of order or nature are enabled, or made less possible, through these connections that the making of environmental knowledge and governance facilitate?
3.   What kinds of territorial claims to resources or authorities are produced or transformed through these knowledge making practices?

These questions evolved over my doctoral studies and the research process. The open ended nature of these questions allowed for exploration into themes – the themes that emerged were less focused on the "ecologies" (broadly conceived) as on what the ecologies and stated relationships with ecologies and knowing about them accomplished. There are three major shifts from my research questions as envisioned in my original research proposal that I highlight as part of the research process.

First, along the lines of Mathews' arguments in *Instituting Nature* (2011), I conceptualise (state) authority as produced through a combination of knowing, not knowing and knowing what not to know (see also Mitchell 2002). Even though this research was not focused on state bureaucracy as Mathews' research was, authority-making in its varied components (i.e., territory, authority, bordering) were evidently significant to individuals and institutions.

In the research proposal, I was much more focused on the links between knowledge and territory making. I have altered this question within the dissertation through a broadened focus and broadened understanding of territory that also links to institutions and authorities, with an emphasis on the relationships that individuals and institutions build on or create through knowledge in order to make particular claims or produce authority and expertise.

Second, the dissertation was written with much less consideration to "nature" than the original proposal. I have bracketed out initial inquiries directed at materiality. I am still working to address these questions (particularly questions raised regarding water, territory, borders). However, during fieldwork and analysis the more compelling research contributions and themes that emerged were nature-state-society relations forged through the production and mobilization of ecological knowledge, particularly revealed in/through the governance processes of Hatgyi dam. This was related to, for instance, the unanticipated opportunity to

focus on governance process "in action" that the Hatgyi public information hearings afforded. 'Nature' and the river have certainly been put at stake, but the themes that emerged from the research were less about what kinds of natures this produced, and instead, was more centered on what kinds of relationships, and the sometimes rather unexpected alliances and conjunctures these processes and practices forged.

Third, some of the "big" questions threaded in the proposal – what is knowledge? How does it circulate? What constitutes its circulation? – are still under investigation. While I can provide analysis and responses to these questions within this particular context at the Salween, I have proposed future research that, by investigating multiple sites of Villager Research, might better address these questions in a broad sense. I have included a section on future research in the conclusion that provides more details.

Participant Observation & Interviews

I conducted over 100 interviews – semi-structured and informal – with residents, NGOs, environmental consultants, government officials and others. I have inventoried these interviews and the questions I relied upon in Appendices A and B. The questions included in Appendix A formed the base for semi-structured interviews but were tailored to suit particular individuals and sometimes altered to follow the lines of conversation and current events. Interviews were recorded whenever possible and detailed notes were taken for all interviews in a research notebook.

Participant observation was particularly useful for a number of reasons. In interviews with Salween Residents, at times I found that their work with NGOs influenced the kinds of questions they expected from me, and also shaped their responses to my questions. In addition, while I prided myself for conducting interviews with EGAT officers, which can be difficult to secure, the more informal interactions were more useful in understanding the

politics of knowledge in dam development.[1] This was particularly true in terms of the ways that EGAT staff were so eager to engage with me and my questions during the public information hearings. This was not generally the case in the more "official" interviews I conducted in EGAT offices which, while also useful, tended to elicit responses that were less focused on addressing my interview questions than on making sure that I understood that EGAT has done everything according to Thai standards. In the subsequent chapters, I bring my own observations together with transcripts from public hearings, interviews and texts to present my arguments about how making claims to nature, society and knowledge are intertwined. Notes on participant observations were recorded on a daily basis in a research notebook. I also recorded notes in a second journal on issues or problems that arose during my research, and I address this further when I discuss my positionality as researcher below.

As part of this ethnographic approach, my research design included plans to be "taken" to multiple locations and to "follow" ecological knowledge to multiple sites. This multi-sited approach helped me to both better understand and make connections in my research. One example are the connections about enacting the political border I was able to make by conducting participant observation at multiple sites. I draw this out in Chapter 6, but to explain briefly: through analysis of the repeat performances of multiple actors in multiple sites I was better able to understand how the political border was very much at stake in the development process. Such connections were not necessarily presented by interviewees, but constituted a primary question that this research sought to address.

Marcus (1999) discusses the dual sides of a multi-sited approach and argues that although many anthropologists have considered multi-sited work as more about revealing

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[1] These interviews are very difficult to secure, mainly because of the mistrust between sympathetic academics and activists on the one side, and EGAT on the other, and what they see as conflicting roles in dam development.

"macro" processes, that just as important are the distinction between particular places. Marcus' interest lies in multi-sited strategies that include, for instance, "elites and subalterns, middle-class and poor, experts and non-experts, institutions and communities" (1999: 7; see also Tsing 2005: 271).

My research findings linked interviews with residents and activists in the village with conversations that villagers had with public officials and dam developers in public hearings. In some cases, conducting interviews and participant observations connected the conversations within activist campaigns to the ways that dam developers and villagers presented themselves in public hearings. At the same time, following some of the connections presented by interviewees – between the everyday practices of villagers and claims by environmental campaigners about knowledge and livelihoods – revealed when and how some of these connections might fall apart. I discuss this in Chapter 8 but briefly, this approach saw me travel with local researchers to public information hearings and NGO seminars. I also interviewed NGO staffers who acted as Research Assistants in Villager Research at the Salween. Those interviews, conducted in NGO offices, elicited much more critical responses and analysis of gaps in the research process than the interviews in the village or participant observation of meetings.

Related to this multi-sited approach, mobility (or lack of mobility) emerged as a theme within knowledge-making and expertise. Who could travel where to speak on topics of significance is an important part of the practice of making knowledge, expertise and producing visions of appropriate order. This was not only true in terms of the individuals and institutions who produce knowledge and alongside it authority, but also in terms of the way that knowledge itself was produced as legitimate or authoritative (I discuss issues related to expertise in more depth in Chapter 8 on "who knows the river"). This is why a multi-site ethnographic approach drawing from a science studies inspired tracing is useful and effective

as a research tool: it opens up possibilities to understand how and why knowledges and "truths travel", as well as the ways that they fall apart.

Languages and Research Assistance

Research was conducted by working with two research assistants in Thai, Karen and English languages. Following discussions about the 'invisible' role of research assistants in the process of making knowledge (Turner 2010), I discuss the role of research assistants at the Salween and describe how they facilitated this research.

My initial research assistant, Sai Nam, accompanied me on two initial trips in early 2010 and introduced me to my now longstanding research assistant, Kay. A recent university graduate and recently married woman who lives in one district town in Mae Hong Son Province but not along the Salween, Kay assisted with language translation between Karen and Thai from December 2010 to August 2011. She repeatedly told me that she felt like she was learning as much as I was about the Salween and Karen history during our trips, highlighting her own position as insider/outsider. In addition to translations, at times, Kay asked her own questions as part of interviews and took notes of her own observations during the public information hearings.

To have an RA from outside the village was essential for the success of this project. I knew from past experience that there are different groups within the villages, for instances, some are delineated by religion (Buddhist, Animist, Christian) and some by geographical location (lowland, upland). My concern was that if I relied on a local person or an NGO colleague to assist with interviews they would not facilitate interviews with individuals who disagreed with their own political stance or make it more difficult for interviewees to express their concerns.

When in the village, we conducted between 2 and 5 interviews per day except on holidays (such as Christmas or New Year) when we joined festivities. We also participated in activities including fishing, riverbank gardening, and tobacco harvesting. Interviews were recorded whenever possible and both of us took notes during the interview and then discussed the interview later in the day to help me describe and transcribe more fully and to think about how the interview approach might be improved. Because of Kay's family commitments, we did not stay in one village more than 2.5 weeks at a time. This worked well because I was able to schedule meetings in the district town, with government officials, attend NGO meetings on a monthly basis. We visited three villages, and Kay also attended public information hearings and assisted in interviews with some NGO staff and local government officials.

Research Sites

As part of a multi-sited ethnographic approach, interviews and participant observation was conducted in and between these main sites: Sob Moei village, Tha Ta Fang village, Sob Moei district town, Chiang Mai, and Bangkok (See Figures 2.1-2.2: Maps of Two Study Villages).

The two villages, Sob Moei and Tha Ta Fang, are located along the Salween River-border. The two villages are of a similar size (approx. 500 households according to FER 2005), but geographically are very different. Sob Moei is located at the confluence of two rivers: the Moei and Salween, and it is the closest Thai village to the sight of the proposed Hatgyi dam. The village is comprised of four "moos" or neighborhoods that are geographically distant from one another. In contrast, the houses in Tha Ta Fang, an upstream village, are placed mostly in one central area, with only one "moo" that is separate from this central

Figure 2.1: Map of Study Village (TTF), Salween Study project. Both maps indicate the location of houses, hosptials, churches, temples schools, agricultural fields, and the River (Chantavong and Longcharoen 2007).

Figure 2.2: Map of Study Village (SM), Salween Study project.

portion. Both communities include people of different religious and ethnic backgrounds. In interviews, individuals identified themselves as: Karen Buddhists, Karen animists, Karen Christians, Thai Buddhists, and Thai-Karen Buddhists.

At first glance, there are not many "state" officials placed in these villages. Both have their own elected village headmen (one per village), but travel and communication can be challenging. Infrastructure, in terms of roads, electrical lines, and phone towers, are limited. In fact, there is no cellular phone reception in either Sob Moei or Tha Ta Fang. These villages are located at least one day's travel from cities like Chiang Mai and Bangkok, and the roads linking these villages to other towns are difficult to travel on, particularly in the rainy season. Moreover, while the focus of international and domestic NGO campaigns, neither village has NGO staff living or based there.

However, the longer I was a visitor in the village the more I saw the variety of ways that "state" officials, offices, connections and activities were a significant part of the village. In both villages, there are groups of Royal Thai Military living in barracks. There were not only village headmen, but also deputy headman, local security offices, teachers for the public school (up to P 6), teachers for high school equivalency education (*Kor Sor Nor*), the villages regularly hosted government officials from central offices and the provinces, for meetings about the dam. Both villages are dotted with solar cells that were installed as part of a policy initiative to electrify the village (Thaksin-era).

In addition, these villages were the site of multiple local knowledge projects, including Salween Study and Villager Research. This included visits from NGO staff from Sob Moei district town, Chiang Mai, and Bangkok. Both villages are also part of dam advocacy networks and host student groups throughout the year (approximately 2-5 times per

year). I spent time with NGO staff who visited regularly, and I also spent time in their offices and in network meetings, in addition to interviewing them on an individual basis.

I also conducted research into the series of public information hearings about Hatgyi dam in early 2011. The decision of the Thai government to conduct these hearings brought a new dimension to this research and offered an additional research site to think about the co-production of knowledge and authority. While stakeholder hearings to discuss development projects are an increasingly common part of participatory decision-making processes in the region, these hearings provided a unique space and process for multiple actors (local and non-local, officials and non-governmental organizations) to come together to discuss ecological knowledge, development, and the political border.

The meetings were held in northwest Thailand in border villages and administrative centers, and aimed to provide information to the public about the Hatgyi dam.[2] The hearings were organized by the Hatgyi Subcommittee appointed through the Thai Prime Minister's Office; the subcommittee was composed of 19 members, including EGAT officials, Ministry officials, the environmental consultant/professor who carried out the EIA, five civil society representatives including NGO staffers and a member of the National Human Rights Commission of Thailand, and a military officer. The mandate for these hearings was to find out "the truth" about the project and present this information to stakeholders. The audience at these public information hearings was mostly comprised of village headmen and residents from affected districts in northwestern Thailand. Within public information hearings there were no official recordings or transcripts. Therefore what I present in this dissertation are my

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[2] These hearings were organized by a Thai government subcommittee appointed by the Prime Minister's Office during the Abhisit government. The full title is: "Public information disclosure and hearing in the case of the Hatgyi dam on the Salween River, Burma."

own recordings, transcripts and translations, with some translation assistance from research assistants.

In addition to this work in the village and in the public information hearings, I conducted interviews and participant observation in Bangkok with NGOs, EGAT and government officials as well as many of the informal interviews and observations along the way on my own or as a part of a group of friends and colleagues, relying on my own understanding of Thai language, and recording with voice recorder and by taking notes.

Texts

In addition to participant observation and interviews, I also collected and reviewed texts emerging from several distinct projects that aimed to record ways of knowing about the environment, including: "Villager Research" (SEARIN 2005), "Salween Study" (FER 2005), the Environmental Impact Assessment for Hatgyi (ERI 2008), the Revised Terms of Reference for Hatgyi (2011), the Hatgyi summary brochure (Hatgyi Subcommittee 2010), the hydrology studies used as the basis for the EIA as well as any documentation distributed in the village or in meetings that I attended. This included for instance, the Hatgyi Subcommittee's meeting notes and letters sent to the Prime Minister of Thailand about the Hatgyi project.

While these texts provided rich detail and images of their own, I also traced how the texts were used – in meetings or within other texts. For instance, as I write about in Chapter 7, the EIA includes references to Villager Research and Salween Study. All text translations (from Thai to English) are my own, unless otherwise noted.

Analysis

To bring together these sometimes disparate sources – the texts, transcripts, field notes, maps – I developed both thematic and descriptive coding. I used NVivo as a tool for organization

and coding. Part of the analysis process included the organization, transcription and translation of sources and data generated that had to be done after I returned to Toronto in 2011. Because of the large amount of data, not all interviews were transcribed and some were transcribed in Thai language with help from my RA and remain in Thai language (with only relevant quotes translated as I wrote).

For coding of transcripts, other texts and images, I developed both descriptive coding (including topics or mentions of key terms like "villager" or "border") and analytical coding for themes (addressing research questions and underlying themes, such as "security") (see Cope 2005, Hay 2005).

In addition, the texts, personal histories and stories, and secondary data combined helped me construct a rich history and context for the unfolding developments and knowledge-making practices at the Salween River-border, presented in Chapter 3.

In presenting these fragments, names of interviewees and of places have been changed. The only exceptions are where I received permission to use the interviewee name or in public hearings where the presenters (but not audience) introduced themselves. However, deciding what/how 'ethnographic fragments' are presented was challenging, both in terms of incorporating the multiple voices and contexts within this research, but also the need to present fragments that present key themes that emerged within this research. Tsing, dealing with similar struggles, explains that through presentation of fragments she takes advantage of the opportunity to emphasize the "interruptions" and "disjunctures" as well as the "conjunctures" of everyday life (2005: 271). This provides a way to break down the dichotomies, for instance between "local" and "non-local," and to highlight the more contingent and unsuccessful encounters that shape the way that both "local" and "global" forces play out. For this research, I take into account both the themes which emerged in

coding and the direct articulations of particular topics by individuals. I present ethnographic fragments as both representative of analysis and that provide insight into the specific contexts of this case.

Limits to Research

While as a researcher I had the benefit of long-standing relationships with activists and academics in Thailand and Southeast Asia, and of language training in Thai (with limited knowledge of northern Thai and Lao), these strengths might also be seen as limits to this research. Salween residents' experiences with participatory knowledge projects and their knowledge of my links to NGOs and to local academics influenced the ways that people responded in interviews. This effect was not limited to Salween residents, but could also be seen in initial interviews I conducted with EGAT officers and others. I attempted to address these limits by demonstrating a commitment to understanding the work and activities of these various actors through participant observation.

Moreover, speaking Thai language in villages with majority Karen peoples also positioned me as an outsider in a particular way. I did practice Karen language during my research, but it was not enough to conduct interviews. I was fortunate enough to have research assistants who would constantly translate and explain certain aspects of village life from Karen, but I know that being able to communicate meaningfully in Karen language would have affected this research.

There were additional geographical constraints in terms of where I could conduct this research safely. I was not able to visit the Hatgyi dam site or to conduct research in Burma. While the situation in Burma is rapidly changing and many scholars and activists have since moved to conduct research in Burma, personal security conditions in the area around the

proposed dam and between it and the border are not yet conducive to long term (or even short term) research.

Positionality

Many people I met during my research at first asked if I was one of two groups: a tourist interested in authentic Karen traditions, or a missionary proselytizing the Christian faith. I identified as a doctoral researcher interested in knowledge and environment of the Salween river-border. I was also upfront about my experience working with NGOs in the past, but explained that I came to do research independently and was interested in hearing about the interviewees, and their opinions and experiences, and that their names would not be identified as part of this process.

One rather humorous misunderstanding took place when I started this research in the village along the Salween. I was inundated with interviewees! While this did provide a boost in my own enthusiasm, there was something about these initial interviews that did not seem right. Interviewees started off by narrating, not their personal histories, but their medical history. It emerged that the village lacked a proper medical clinic, as well as the electricity to run it, and in the context of hydroelectric development this was significant. Yet, it was confusing to hear about medical issues in response to my questions about everyday life, ecological knowledge and dam development. After the first two interviews, we took a Nescafe break. Sai Nam and Jane, the woman who was hosting us, had a quick chat and it was resolved that from now on I would be introduced as a "student" and not "doctoral student" in order to make clear that I was not a medical doctor or medical student.[3]

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[3] How this misunderstanding occurred is not clear to me. In Thai language, there is no confusion between medical and PhD student. My guess is that there was a moment of mistranslation from either English to Karen or Thai to Karen related to the way I introduced myself as a student.

Even as that confusion quickly cleared, misunderstandings did occur at additional junctures in the research process. I wrote and thought about these situations in my field notes and reviewed them at points when I was combing through and organizing interviews. Moreover, in subsequent consideration of this initial "problem" two lessons materialised. First, even as this medical talk was not directly part of my research, it was a useful part of describing the daily concerns, challenges, and hopes of the people in the village. For instance, I found out about the relationships with the Karen National Union (KNU) and with nearby refugee camps. Many individuals expressed preference for the KNU's doctor over the doctor placed in the village, emphasizing how "bad" the village doctor placed here from central Thailand was, but also their desires and their rights to have access to better medical care as people who associated with Thailand, and not Burma. These experiences pushed me to think about the more indirect ways 'development' and 'politics' might be articulated. Second, I was reminded that while my research questions and interview questions were important to me, and I hoped were important more generally in terms of addressing questions of knowledge making and development, it was imperative to be open to exploring additional topics and concerns, while also balancing my own research agenda. In particular, it was important to discuss the issues that really mattered to the people I was interviewing as part of the ongoing conversation I hoped to have as part of this research.

Throughout the research and writing process, I was pushed further (by myself, and others) to think about my own voice and position as a white, western, Thai-speaking but not Thai or Karen, researcher. As part of being cognisant of my own position and as an attempt to record related experiences, in addition to my research notebook I kept a detailed research diary in order to record observations and experiences not limited to: problems arising in the research process, relationship with my research assistant, my position as insider/outsider with NGO networks, my own opinions and how they change (i.e., about NGOs, villager-led

initiatives, etc), and how I was perceived and received by participants. In fact, as part of presenting multiple voices and narratives from my research, some of the fragments I include in this dissertation include myself/me; however, this was only done in instances where it helps to elucidate my arguments.

On a daily basis, I also took notes on the ways I negotiated the expectations that came from being a former NGO staff. As I discussed regarding the limits to this research, this included expectations that my research was intended to provide specific answers for or against dam development. Many interviewees who had experience with NGOs and the villager research project also had very specific ideas about what my questions and research would and should be about. In addition, as single interviews turned into longer conversations, my own stance on issues not limited to development, but as broad as religious preference, support for the Karen peoples' political, and armed struggles in Burma were all a regular point of interest. Because I had time to be able to get to know many of my interviewees (and this includes, for instance, the environmental consultants in addition to villagers and activists), I was able to discuss these assumptions and answer questions about my own research interests. For instance, my last question in all interviews was to ask the interviewees if they had any questions about me or my research, and to let them know they could continue to contact me to ask questions.

While this was useful in my personal relationships at an individual level, I recognize that a significant part of this process of critical reflexivity is that the research outputs and academic writing that I have been striving to produce is not only understood as a relationship between the researcher and the researched (Rose 1997) but that its meanings and intentions can travel and proliferate through publications and discussions in academia and elsewhere.

As evident in work in anthropology and geography, carrying out research regarding social or resistance movements also requires consideration for the possibility of exposing internal workings to other actors that may cause harm to a movement's purpose (i.e., the "hidden transcripts", see Brosius 1999). Alternatively, being perceived as too closely aligned with activists may pose challenges to interviewing other actors, such as developers or scientists who potentially see their position as being under attack by activist campaigns.

As part of analysis and writing, these observations have been useful in a number of ways and as noted above, I do reflect on some of these observations within the following chapters. In addition, the continual process of "critical reflexivity" helped me to consider what I was missing as part of this research, particularly research in Burma. Burma was talked about as both a dangerous, inaccessible place that I should be wary of entering and at the same time, a place where attention and energies of villagers, activists, developers and the media was focused. I was offered passage to Karen State, Burma "clandestinely" from my research site and later, there were multiple possibilities to accompany friends and colleagues to visit Yangon or Mandalay as a tourist. I declined due to my own lack of language skills and lack of certainty that these kinds of visits and the time allowed for them would help me address research questions. However, these notes and gaps have helped me formulate questions that I will pursue as part of future research.

Finally, through conducting this research and participating in academic conferences, workshops, and NGO forums I have also become a source of information on the Salween and the Hatgyi dam. These experiences have also pushed me to consider the ways that I help to circulate knowledge about the Salween in increasingly larger networks.

Research Schedule

Research phase	Activities/Method	Objectives or Data Generated	Specific Questions Addressed
PHASE 1 Preliminary June-August 2009 Thailand	• Oral histories with local residents; • Participant observation with activists, researchers and academics; • Collected secondary data produced by local communities and NGOs; • Preliminary assessment of archives	• Research priorities and village-level study feasibility identified; • Priorities & products of advocacy campaigns documented and reviewed; • Surveyed available historical information with regard to villages along Salween border areas.	• Important in constructing research questions.
PHASE 2 Updates and Observations Sept –Oct 2010 Thailand (Bangkok, Chiang Mai, Sob Moei)	• Began interviews after ethics approval; October 2010; • Conducted participant observation with activists and NGO groups working on issues related to Salween; • Worked with local authorities and local NGO to finalize plans for village fieldwork; • Inventories river-related policy and legislative documents.	• Update on actors and activities related to dam developments and advocacy campaigns; • Secondary data collected on NGO activities, such as local knowledge initiatives; • Helped assess historical context and political agreements regarding transboundary river developments.	Addresses what claims have been made and documented to river resources (from either NGO or local actors, but also in historical and geopolitical context). Can help to inform all questions.
PHASE 3 Intensive Local Case Studies Oct 2010-Mar 2011 Tha Ta Fang and Sob Moei villages, Mae Hong Son province	Fieldwork in the villages: • Open-ended interview with community leaders and villagers, scientists, and activists; • Participate in different village meetings and activities (agriculture, fishing, etc); • Participant observation of activities in villages, i.e., Thai Baan and ecological knowledge collection and discussions;	• Provided understanding of local context; • Showed ways that claims to resources were articulated and negotiated (both within village and with regard to other actors); • Provided information about access to water and land, and tenure arrangements, key water issues, livelihood strategies, and forms of resistance.	Addresses questions re: 1 (a-c); 2 (a-b), 3(c).

PHASE 4 **Reflection, workshop, conference** April-May 2011 Review findings | Write-up of preliminary analysis and attended AAS meeting, stayed at East-West Center, University of Hawaii | Identified research/empirical gaps and discussed these findings with supervisors.			
PHASE 5 **Intensive work with authorities and others** June-Aug 2011 Sob Moei district town and Chiang Mai, Bangkok as needed.	• Conducted key informant interviews with government officials (policymakers, district authorities, Royal Forest Department, EGAT), developers, engineers, etc to question river management decision-making and practices; • Conducted interviews with NGO staff and participated in their network meetings • Began to address gaps identified in mid-fieldwork summary. *This phase overlapped with Phase 2 & 3.*	• Generated information on river management decision-making processes and outcomes; • Expanded understanding of the role of various actors in the development process; • Helped assess points of collaboration and tension between different actors.	Addresses 1; can also inform 2(a-c).
PHASE 6 **Data analysis** Sept 2011- Apr 2012	• Completed transcription and translation of field data; • Data analysis, including thematic coding, and qualitative content analysis (begin in Fall; ongoing).	• Coding and data analysis completed in order to facilitate productive writing process under Visiting PhDship at Roskilde University, Denmark and under Susan Mann Dissertation Scholarship at York.	Helpful in addressing all questions, but particularly questions 2 and 3 and their implications.
PHASE 7 **Dissertation writing** May 2012- August 2013	• First drafts of chapters 3 to 7 (main arguments) presented at conferences and read by co-supervisors • Fall 2012: Taught Political Ecology course • Winter 2013: IDRC additional fieldwork	• Dissertation writing and revising with aim to submit draft by end of Summer 2013 • Defend dissertation Fall 2013	

CHAPTER 3 STORIES OF THE RIVER-BORDER IN CONTEXT

At the Salween

On July 12, 2009, I participated in the "Hatgyi dam: Is it necessary for Thailand?" public forum at the Salween. The forum took place on the Thai bank of the Salween River, in the nearest village within Thailand to the location of the Hatgyi dam, proposed downstream in Burma (See Figure 1.2: Location of Hatgyi dam and study area along the Thai-Burma border and Figure 3.1: Timeline of ecological knowledge and development: Hatgyi hydroelectric project, Salween River). I travelled to the meeting by boat with local residents, NGO activists, and some of the students and instructors who had participated in a school trip that I had helped facilitate in another Salween village upstream. The public forum was also attended by representatives from the Thai Prime Minister's Office, from the Electricity Generating Authority of Thailand (EGAT), and the National Human Rights Commission of Thailand (NHRC-T).

The Prime Minister's representative was there in his capacity as the Chair of the "Subcommittee to Study Information and Present Comments Concerning the Impacts and Human Rights Abuse in the Construction of Hatgyi Dam".[1] This Subcommittee, formed by the Prime Minister's office to investigate the Hatgyi dam, would hold a series of public meetings in this and other villages during my primary fieldwork in 2010-2011. In contrast to those meetings, the 2009 public forum was organized by a network of non-governmental organizations (NGO), which included local NGOs as well as the NGO Coordinating Committee of Northern Thailand

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[1] The Hatgyi subcommittee was formed on 8 June 2009, and members are appointed to provide oversight for the Hatgyi process. It includes ministry, industry, and civil society representatives. The full name is the "Sub-committee to Study Information and Present Comments on the Various Impacts Including Human Rights Abuses in the case of Electricity Generating Authority of Thailand's proposed Hatgyi Dam Project on the Salween River in the Republic of the Union of Myanmar [Burma]."

2003 Two Salween dam projects are included in EGAT's 2003-2016 Power Development Plan.

2005 First "Salween Villager Research" study published.

2006 [May] EGAT staff is injured by landmine in Karen State, Burma while accompanying the environmental consultants conducting the environmental impact assessment study. EGAT staff later dies and EGAT suspends study until 2007.

2006 [June] Memorandum of Understanding (MoU) agreed to by EGAT and China's Sinohydro Corporation to jointly develop the US$1 billion Hatgyi hydroelectric project with Myanmar.

2007 National Human Rights Commission of Thailand report submitted to Prime Minister; raises three major issues that need to be addressed: human rights, transboundary impacts, and accuracy of water level measurements by EGAT.

2009 [July] NGO organized "Hatgyi dam: Is it necessary for Thailand?" public forum held.

2010 [April] MoA signed by Burma's Ministry of Electric Power, EGAT International, China's Sinohydro company, and Burma's International Group of Entrepreneurs for the development of Hatgyi Hydropower Project.

2010 [Nov] Elections held in Burma, military-backed party wins majority.

2011 [Feb-March] Public Forums "for public information disclosure and to receive comments and perspectives from impacted communities" organized by Hatgyi subcommittee held.

2013 [Aug] Official from the Myanmar Ministry of Electric Power tells the *Myanmar Times* that the Hatgyi project will go ahead in the next 4 to 10 years.

2005 Memorandum of Agreement (MoA) signed to develop Hatgyi dam in Karen State, Burma by Burma's Department of Hydroelectric Power and EGAT. The MoA states that the information related to the project will be "strictly confidential" and not be divulged "without prior written consent of all Parties." (TERRA 2006)

2006 [Sept] "EGAT states previous plans to study the social and environmental impacts of hydroelectric dam on the Burmese side would be abandoned, to avoid meddling in Burma's internal affairs." (TERRA 2006)

2007 [Dec] *The Water Resources Engineering and Water Impact Studies of Hutgyi Hydropower Project* By the Department of Water Resources Engineering, Faculty of Engineering, Kasetsart University for the Electricity Generating Authority of Thailand.

2007 *Salween Study: River of life and livelihoods* published.

2009 [July] Hatgyi *Environmental Impact Assessment* report completed.

2009 Hatgyi subcommittee formed to address complaints raised by the Thai National Human Rights Commission, focused on information disclosure and "what information is the truth".

2010 [Dec] Booklets summarizing the EIA findings produced by Thai government Hatgyi subcommittee distributed to impacted communities. The full EIA report is not publicly released.

2011 [April] New Terms of Reference compiled by the Hatgyi Subcommittee for further study of Hatgyi dam.

2011 [July] General elections held in Thailand, the opposition party, Pheu Thai ("For Thais"), supported by the "Red shirts", wins overwhelming majority. The Hatgyi Subcommittee has not met since these elections.

Figure 3.1: Timeline of ecological knowledge and development: Hatgyi hydroelectric project, Salween River

(an NGO network generally referred to as the "NGO Cord-North"). The meeting took place on the grounds of the village elementary school.

The day after this meeting, the *Matichon Daily*, a widely circulated Thai paper, ran the headline "19 villages demanded Salween dam project be shelved, submitting petitions to Thai PM with concern over escalation of civil war" (13 July 2009, *Matichon Daily*). The petition was signed by over 2,000 villagers from 19 Salween villages and was submitted to the Thai Prime Minister's representative at the meeting.

While the media coverage focused on the ends and outcomes of the meeting when prepared statements were read, and this petition was received by the Prime Minister's representative, the performances in the middle of the meeting were what impressed me. The meeting's facilitator, the head of the "NGO Cord", urged villagers to speak up about their concerns about the proposed dam. In particular, he encouraged women to present their concerns and questions. There was a brief lull in the meeting and a representative from EGAT rose to speak. The meeting facilitator told the EGAT representative to sit down, this was a not a meeting for him to speak.[2] The comment was made, not in an unkind way, but as a matter of fact comment that then transitioned seamlessly into the next

Figure 3.2: Image of Villager Map at 2009 Public Forum

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[2] I do not have a direct quote, but in my notes I indicated that the facilitator said something along the lines of "we don't need to hear anything from you at this meeting".

(female) villager's concerns. She expressed concerns about the EGAT staff who had previously visited the village to conduct "river studies" but who had failed to notify or provide information to villagers of their plans to dam the Salween.

In addition, the presence of a hand-drawn map displayed at the front of the meeting hall was memorable. This map was referred to several times within the meeting, particularly in reference to the number of villages it located along the Salween River (see Figure 3.2 Image of Villager Map Presented at Public Forum). EGAT surveyors had claimed that there were only 23 houses along the Salween River, a claim refuted on this map which located more than 60 villages along one short stretch of the Salween. As I noted in the methodology it is these performances and presentations, and their relationships to governance, that I am concerned with.

The timing of this meeting and that it took place at the political border was also significant. At this time, the "Red Shirt/Yellow Shirt" protests were unfolding across the country, and there was a general tension and anxiety around political organizing. During the year prior to this preliminary fieldwork, in November 2008, Bangkok's International Airport was occupied by "Yellow Shirt" demonstrators who were protesting *against* the government. The summer following this preliminary fieldwork, but before my longer term research, Thailand made world headlines again focused on the "Red Shirt" mobilizations (mostly from March to May 2010). Central World, a large shopping complex in downtown Bangkok was burned to the ground. The city was essentially closed down, more than 50 people were killed, and thousands of people injured in clashes between protestors and the military. While these clashes in Bangkok might be seen as distant from the Salween River geographically, the political divisions were palpable in Mae Hong Son Province, a province that would go "yellow" (not red) in support of the monarchy-aligned government in the elections of 2010.

In this context, dams were referred to as a "hot" issue that was at the heart of the anti-government protests because they spoke to broader concern about agency and outcomes of rural governance and also to concerns about even the Thai elite's ideas about nature conservation. Decisions over dams and river governance have been hotly contested in Thailand for decades.[3] Part of what the Red Shirts were protesting was that their elected choices had been overruled by elite Thai institutions, particularly the military and the monarchy (see also Walker 2012).

At the same time, general elections were held in Burma in November 2011 for the first time in over 20 years.[4] Many critics of the 2011 elections pointed to the fact that the main opposition party, the National League for Democracy (NLD), and their leader Aung Sang Suu Kyi, did not participate. There were also multiple crackdowns leading up to and after the election. This included fighting along the Thai-Burma border that pushed an estimated 10,000 people across from Karen State into Thailand at Mae Sot. A major refugee center and border crossing, Mae Sot is located south of where the Salween comprises the border.

This political upheaval in Thailand and Burma served as an important context to the issues of dams, development, nations and knowledges that I foreground in the dissertation. The 2009 public forum in particular, and the short description I offer of it above, introduce some of

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[3] For instance, one local NGO staff explained to me around this 2009 meeting that while the contrasting opinions within dam development were not drawn along "red-yellow" lines, they were related to the deep divisions in Thailand regarding rural people, and whether they can or should make decisions about government and governance. In his words, "Dams are a particularly hot issue; not like issues such as community forests, education or citizenship [those are "cold"] and in his travel to villages in the Salween Basin, he often had to emphasize the educational component of this work (as opposed to issues related to the dam) in order to cross military checkpoints.

[4] The last election in Burma was in 1990 when the National League Democracy (NLD) led by Aung Sang Suu Kyi won 81% of the seats in parliament. This election followed the "8888" demonstrations (with main events taking place on August 8, 1988) which protested the one-party socialist government system. However, the NLD was not allowed to take power. Instead, Aung Sang was put under house arrest and the former ruling party since 1988, the State Law and Order Restoration Council (SLORC) [which later renamed itself the State Peace and Development Council (SPDC)] took power. The SPDC was dissolved in 2011, but many of those elected in the 2011 government were former military/SPDC and their allies. At present, Aung Sang and the NLD have participated in the more recent 2012 elections and Aung Sang is now a representative of the lower house.

the key points that I want to draw out further in this short background chapter before introducing my ethnographic fieldwork data in Chapters 4-8. There are a number of stories of the river-border that are important to elucidate, including the border's incomplete delimitation, the specifics of the dam developments currently proposed on and around the transboundary stretch of this river, and information about the people who are resident at the river-border. In addition, it is essential to understand Thailand's role in regional energy developments. I begin with the Salween in regional context.

Regional Energy Developments: Salween in context

Thailand has been playing a particularly important role in regional development, focusing its energy development efforts on sites at or just beyond its borders. Energy projects like Hatgyi that straddle borders and transboundary rivers are an emerging norm within Southeast Asia (see relevant work on Mekong dam development: Bakker 1999; Sneddon and Fox 2006, 2011). Other energy development projects currently being undertaken just beyond Thai borders include the proposed Xayabouri dam on the Mekong in Laos, and the Dawei industrial estate in Burma; both are being developed with Thai funding and with the intention to export the bulk of the energy back to Thailand. Many understand this trend to be related to strong, sustained resistance mounted against large energy development projects by civil society groups within Thailand (Hirsch 2010, Middleton 2012).

While the Hatgyi dam is a project situated beyond Thailand's border, thanks to its disputed cross-border impacts it has remained under the scrutiny of domestic Thai governance processes. In this way it differs from aforementioned energy developments which have not conducted public information sessions in Thailand. Development projects, and the participatory

governance processes that must legally accompany them in Thailand, have often generated a 'standoff' between those supporting the project (EGAT in particular, but other dam developers as well) and 'opponent' NGOs and village representatives. Indeed, dam development is a polarized issue, one that for many "epitomises the dilemma found at the heart of development" (Middleton 2010: 466). While Hatgyi's governance processes are not necessarily subject to Thai law (this is subject to debate), EGAT has engaged some aspects of participatory governance; this has meant that it has been exposed to familiar forms of critique and resistance from civil society groups.

However, I argue that this 'pro' and 'anti' dam standoff misses an important opportunity to understand how environmental governance works. In addition, the story of the river-border is much too messy to be contained by the clean narrative that there are simply actors working for or against development. Many actors at the border are simultaneously involved in several overlapping processes, including the 'participatory' development process of the Hagtyi dam, and advocacy for or against the proposed Salween dams. These and other concerns have these actors engaging with and at times performing and enacting different institutions such as the state (in the guise of its various responsibilities to know and act in this district) and the political border itself. A variety of disparate motivations drive these actors as they enact—or co-produce—knowledges and institutions, such as the border, and I draw these out further in subsequent chapters.

As I noted above, it was significant that the 2009 meeting took place at the political border because it represents a move to engage with government officials, more generally associated with Bangkok. Also, since I began my dissertation work in 2008, *all* of Thailand's political borders have been sites of conflict.[5] Within the context of border conflicts, that there

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[5] In addition to the Thai-Burma border, the conflict over the Thai-Cambodia border over who can claim the Preah Vihear temple as their national territory and heritage has been very well documented and has been at the center of "Yellow Shirt" protests for several years. Other borders contests include the protracted conflict at the Thai-Malaysia

was organized meetings with EGAT, government officials, activists, and others (like myself) at the Salween River-border highlights the continued attention and investment by these actors in the river-border's development and governance. Next, I offer a short history of the Salween River-border, the residents who live along the Salween, and then provide details about the Hatgyi project and border security.

Stories of the river-border

The Salween River makes up 120 kilometers (81 miles) of what is understood as the present-day political border between Mae Hong Son Province, Thailand and Karen State, Burma. From there, the border continues south another 260 kilometers (240 miles) along a tributary of the Salween called the Moei River. This river-border was agreed upon in writing in 1834 between the British and the northern Thai kingdom at Chiang Mai (Winichakul 1994: 68). It was subsequently surveyed on the ground by British officials with the help of five Karen elders, a two-year task concluded in 1849 (Ibid: 69).

British rule in Burma ended in 1948, and today Thailand does not recognize this border as officially delimited. In fact, most documents report that only 60 of the approximately 2,400 kilometers of the Thai-Burma border have been physically demarcated (for instance, see: Ball 2004, Pate 2010). During my research, this 'fact' was reiterated by government officials, villagers, and soldiers in formal representations and informal conversations, and at several times a direct connection was made between the proposed energy developments and the "opportunity" they provide to clarify the border area.

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border (McCargo 2008) and a smaller skirmish over Thai troops crossing the Lao border and into Lao territory en route to Cambodia in 2008 (10 October 2008 *Phnom Penh Post*).

This leads to the present-day story of the river-border: the impending development plans for the Salween. A coalition of developers in Thailand, China, and Burma are working to gain political approval for the Hatgyi dam, one of 16 large hydroelectric projects proposed on the Salween. Hatgyi as proposed in the EIA would produce 1,360 megawatts (MW), with 8 turbine generating electricity (7 turbines produce for Thailand, through Pitsanulok substation; 1 turbine to produce for Burma). The EIA lists the dam at a "maximum" height of 117.6 metres, which by World Commission on Dam Standards is a large dam. The reservoir height listed is 48 mean sea level (MSL) which is between the low and high season water levels.

The investors for the dam include the international arm of EGAT, China's Sinohydro Company[6], the Burmese Ministry of Hydropower and a Burmese company, IGE.[7] I say this project is contentious because, while the electricity would be generated to send to Thailand, the physical dam barrage is proposed on the Salween River just as it enters Karen State, Burma. There has also been conflicting and imprecise information presented by the project developers regarding the exact location and size of the project, and regarding what 'run of river' means in the context of a dam that at 1,360 megawatts is at the large end of a class of hydroelectric installation normally construed by the public to describe much smaller plants.

If built, Hatgyi would be the first dam on this river, one of the longest free-flowing rivers in Asia, threatening the livelihood and food source for the six million people who live in the river basin (Wong et al 2007). The dam also poses challenges for the river's political geographies. As noted in the introduction, within a short distance upstream the proposed dam site, the river

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[6] For additional information about China's Sinohydro Company, known as "the world's biggest hydropower dam company" and their investments in hydropower see International Rivers (2012, 2014).
[7] While there have been two Memorandums of Agreement (MoA) signed for Hatgyi dam (9 December 2005 and 24 April 2010), there is not presently a power purchase agreement nor a specific management plan for the project.

comprises the political border (see map, Figure 1.2 Location of Hatgyi dam and study area along the Thai-Burma border). The proposed construction of the dam and the contemplated water management schemes associated with its installation will transform the river's flow and water levels. As a consequence, a whole host of questions have emerged from activists, government officials, border residents, and military officers about how these physical changes will affect the political border. These intertwined stories of development and border-making inform how the river-border has emerged today. The development proposal for Hatgyi, as the vanguard for four to six other dam projects proposed along the river-border, poses questions about who and what will be impacted and how the border will be transformed.

This dam threatens to displace villages located along the border, in addition to those directly adjacent to the dam site within Burma. Those potentially displaced along the border in Thailand reside in the province of Mae Hong Son. Residents in Mae Hong Son make an average salary of 20,000 baht (approximately 650 CAD) per year (UNESCO 2012). It is the poorest province in Thailand with the country's lowest Human Development Index according to two most recent National Human Development Reports (UNDP 2007, 2009). In terms of electricity usage, each of the three major shopping malls in Bangkok - Siam Paragon, MBK and Central World – use more electricity than the entire province of Mae Hong Son (Energy Thai 2011).

The border villages are majority Karen and Thai-Karen, an ethnic group who has been the subject of a large amount of scholarship in Southeast Asian Studies (Kunstadter 1967, Kunstadter et al 1978, Keyes 1979, 2003, Rajah 1990, Wijeyewardene 1990, Laungaramsri 2002, Delang 2003, Scott 2009).[8] Much recent work has attended to the refugee camps and border

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[8] See also: Leach (1960) regarding the Karen more generally.

crossing at Mae Sot, Thailand, located south of my field site (i.e., Grundy-Warr and Wong 2002, Grundy-Warr 1994, Decha 2006, 2007, Hyndman 2002). I contribute to this research by focusing on Karen residents in Thailand's Northwest, and in examining their relationship to Thailand, imagined as nation and state, and the political border.

Daily Practice at the River-border

The residents along the river-border undertake a variety of livelihood activities; their portfolio includes trading, fishing, and agriculture such as riverbank gardening and swidden. I have included two tables with information collected by villagers about their agricultural activities here, including a calendar of year round agricultural activities and also a calendar of riverbank gardening activities. There two tables are translated and adapted from research that residents conducted in collaboration with NGO staff; it is documented in the *Salween Study* book (Chantavong and Longcharoen 2007).

Month	Activity
June-Sept	This is the period when river inundates the banks.
October	The riverbanks start to be exposed; start planting crops such as long beans (also known as yardlong beans) and sesame.
November	Plant crops including peanuts, melon, beans, pumpkins, maize and tobacco.
December	Continue to plant crops and also plant in the areas that have been newly exposed by the receding water levels.
January	Harvest beans (i.e., long beans).
Feb-June	Harvest beans, peanuts, sesame and also start to collect seed for next year.
April-May	Harvest melons and other crops that remain.
Table 3.1 "A calendar of Salween riverbank gardening" translated and adapted from Salween Study (Chantavong and Longcharoen 2007: 125).	

Month	Activity
January	Harvest chilies, taro, tubers (in and around the upland fields), sesame, and cassava.
February	Harvest cotton and also survey new areas for swidden. Mid-month new swidden fields are cleared.
March	Prepare and dry the seeds for planting in the fields.
April	Mid-month, clear the upland fields. Build field hut or shelter (krathom). This is also the time to hunt for forest animals or for aquatic animals. At the end of this month, maize is planted. You can also collect water for drinking and for irrigating crops. This is kept in the fields for rice planting time.
May	Sow rice seeds (upland). At the same time, you can sow other vegetable seeds like beans, pumpkins or other vegetables that can be scattered or sown in the middle of the field (i.e., chilies, tobacco, greens). After one week, you can plant other crops like maize.
June	Build or renovate the kitchen; clear fields all month long.
July	Grasses are cleared from rice fields at least three times in this month. Mice traps and traps for other animals that might invade your crops are set.
August	Clear grasses in upland fields. Some vegetables and crops can be harvested and sold, this includes maize.
September	Clear grasses in rice fields (upland).
October	Harvest rice (specific local varieties) and collect the rice seeds for use next year (all different varieties).
November	Harvest rice (upland) and collect the rice seeds.
December	Harvest taro and potato tubers. Also, harvest tobacco and cotton if available.
TABLE 3.2 "A table of 12 months of farming (tham rai) in one village" translated and adapted from *Salween Study* (Chantavong and Longcharoen 2007: 113).	

In sum, while farming is done year round, the rice (mainly upland or "dry" rice) is harvested in the months of October and November (see Table 3.1, a table of 12 months of farming in one village). Crops from the riverbank gardens are harvested from January until May; in June the river's water levels rise, inundating the banks (see Table 3.2, A calendar of Salween riverbank gardening). One local project identified over 30 crop varieties grown in the gardens,

including those listed in Table 3.1, such as peanuts, melons and tobacco (SEARIN 2005). In my own experience, I have also witnessed men and women of varying ages (from youth to 50 years plus) working at different times in nearby cities, depending on opportunities available and the requirements for their labor in the village.

In addition, fishing activities take place throughout the year, both in terms of fishing with large nets from boats in the mainstream and fishing with a variety of small nets in tributaries of the Salween. The most lucrative fishing periods are in January and then again in April-May when the largest fish migrations occur. Fishing activities and fish species of significance have been documented by residents in two local projects, the *Salween Study* (Chantavong and Longcharoen 2007) and the *Salween Villager Research* project (SEARIN 2005). The *Salween Study* identifies fish as particularly important, noting that "Fish in the Salween mainstream and tributaries are an important source of food for every family" (2007: 26). That study identified "up to 83 different species of fish and aquatic animals" (2007: 27). In addition to fish species, Salween Villager Research (2005) identified at least 19 distinct fishing gears. The number of fish species in the basin varies, estimates range between "at least" 140 fish species (Wong et al 2007) to somewhere between 200-500 (Chantavong and Longcharoen 2007); Fishbase.org, a global database of information on fish, lists the number of known fish species in the Salween River at 147.

The research conducted in these local projects, and presented here in Tables 3.1 and 3.2, emphasize that each season and month are different in terms of daily practice and livelihood activities. I present them here as a way to provide a brief overview of different tasks and practices in the villages I conducted research.

"Forest Guardians or Forest Destroyers": The Karen in Thailand

In addition to agriculture, the landscape of the Salween River-border still shows evidence of its timber-producing history. Rows of planted teak trees still mark multiple points along the river where the land was used by various companies and by the Thai state for timber extraction, even though timber is no longer legally extracted in this area since the 1989 logging ban in Thailand. These histories of timber development, forest management, and the struggles by Karen communities for their rights to manage these areas through the community forest movement also comprise an important part of the history of the area. These histories set the stage for how debates and contests of resources play out in that they have established both a set of rules and procedures with how resource conflicts are handled but also with regard to who has the authority to make decisions about these conflicts.

Several leaders explained how their villages along the Salween were originally sites of timber extraction. I was told that the Karen people were hired by Thai and British companies for their skills as elephant mahouts to extract timber and at different points to help move logs downstream to Burma. One village headman explained that the community was not happy with their role in disturbing the forest and decided that they needed to manage the forest in ways that were more appropriate. Although it is a bit of stretch to directly connect timber extraction of the late 1800s, with 1989 logging ban and subsequent community forest movement, many individuals identified that the impetus for the community forest management came from these histories and from personal experiences with timber development. This particular community has a forestry office nearby and local leaders have taken turns working for the office (for salary) and maintaining good relationships with the forestry officers. In thinking about the ways that the relationship between the village and the state has developed over time, these existing

relationships and investments with government officials set the stage for how current processes of governance unfold.

This history of forest use and governance is also significant in this case considering that the province of Mae Hong Son where this research was conducted is listed in the Royal Forest Department 2011 Statistics book as 88.85 percent "forest land". This "forest land" is under the jurisdiction of variety of state authorities and categories, including national forest, national park, and wildlife sanctuary.[9] While these 2011 data must fail to take into account overlapping forest areas – i.e., land that is categorized both "national park" and "wildlife sanctuary" – it is illustrative of a larger issue. Mainly, in the province forest protection policies and legislation mean that many established villages and towns have not and cannot receive or apply for land title documents. One NGO director would make light of this in his presentations to students and to NGO network meetings, noting that "If you arrest me, you must arrest the governor" because even the administration buildings nearby the local NGO office lacked land title. This lack of land title becomes important in present-day talks with EGAT over the Hatgyi dam and the potential compensation for lost land and livelihoods. Where I conducted research, villages have been characterized under a variety of forest categories, including in the case of one village, as part of both the Salween National Park and the Salween Wildlife Sanctuary. In a second village, there are still ongoing negotiations over where the national forest land ends and the village begins, with villagers concerned that the planting of trees near their village constitutes an encroachment onto the village land.

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[9] In this document (RFD 2011), forest area is defined as "forest types such as evergreen, coniferous forest, mixed deciduous forest, deciduous dipterocarp forest, mangrove swamp and scrub forest, beach, etc…[that are under a variety of categories such as] national forest, national park, wildlife sanctuary" and also, "Forest land refers to areas that are not classified as forest and agricultural land , residential land or water (แหล่งน้ำ)".

Upland forests in Thailand have notoriously been classified in ways that restrict access to people who live in those forests (Vandergeest and Peluso 1995, 2006). In the 1990s-2000s the community forest movement in Thailand advocated for increased awareness that people do live in forest lands, and for communities to manage their own forests, particularly as seen in their submission of "The People's Community Forest Bill" to parliament (see, for instance, Usher 2009).

The Karen were seen as leaders of this movement, which focused on the ways that communities could more sustainably manage forests and particularly focused on the use of swidden agriculture. This focus on swidden agriculture for subsistence became a subject for one academic's critique of the community forest movement (Walker 2001, 2004). Walker argued that a consensus was forged that focused on swidden in upland areas as "a relatively sustainable, ecologically friendly and subsistence-oriented form of agriculture that is threatened by the recent intrusion of the state and the market" (2001: 145). He contended that "portrayals encompassed by this 'Karen consensus' rely on overly selective accounts of Karen economy and, in particular, play down the historical importance of long-term agricultural intensification and commercial exchange" (2001: 145). This reified Karen livelihoods into a narrow band described as subsistence-oriented and espousing "non-commercial" values. Later, Walker also argued that the lack of focus within the movement on farming in the forest resulted in a restricted space for discussion of these issues, what he termed "arborealization" of agriculture (2004). Today, the Community Forest Bill remains a subject of contention, and the version of this bill passed in 2007 by parliament continues to fall short of the campaigners' vision (see, for instance,

Janchitfah's 2008 "Flaws in the Forestry Bill" or Walker's 2007 "Will the community forest act be good for farmers?").[10]

Related to Walker's critique, in Thailand many ethnic minorities, but particularly the Karen, are often positioned by environmental activists, academics and the general Thai public as living close to nature and far from modernity (Forsyth and Walker 2008, Delang 2003). In these stereotypes and narratives, the Karen are responsible for taking care of "nature", but they are also blamed for any deforestation and other environmental degradation that occurs (Forsyth and Walker 2008; Walker 2003). Similar characterizations prevail in water management, where Walker (2003) argues that blame for drought or lack of water has been fixed on people in upland areas, many of whom are ethnic minorities, while leaving the lowland side of demand and water management issues unaddressed. The Karen—along with other ethnic groups including the Hmong and Akha—are more commonly referred to as "hill peoples" (*chao khao*) rather than villagers (*chao baan*), characterizations that are built on long-held understandings that the people living in the borderlands and uplands of Southeast Asia existed disconnected from the center (Winichakul 2000).

The popular accounts of the Karen in the community forest movement by environmentalists in Thailand (Walker 2001, 2004), in addition to their portrayal in media and historical scholarship, also place them as living at the political-cultural edges of Thailand, far

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[10] More recently in May 2011, overlapping with my research, the Thai Government approved the community land title program and there have been applications for "community land titles" in Mae Hong Son Province along the Salween. The process allows for the village to submit one application to the ministry for a restricted kind of shared title that, as I understand it, cannot be sold but that guarantees use rights to land including paddy fields, houses, and gardens, but not riverbank gardens. According to RECOFT, the Royal Forestry Department registered approximately 7,000 community forests as of 2010 (RECOFT 2011). However, all of these were outside of protected areas; none of the community land title applications in Mae Hong Son have been approved.

from those who would be considered to be politically or ethnically "Thai" (Winichakul 2000, Vandergeest 2003, Keyes 2003, Forsyth 2007, Forsyth and Walker 2008). Instead, they are more frequently associated with the Burmese nation-state.

I consider this contested positioning of Karen people, their roles in environmental governance, and advocacy in my analysis throughout this dissertation. This positioning intensifies the discussion of what is at stake when thinking about institutions of governance and the state at the border. For instance, whether the Karen are "Thai or not" has been a discussion regarding which side of the border residents belong on, even when living in villages with long standing within Thailand, and about whose jurisdiction they may represent in the context of future dam development and decision-making. I also want to be clear that while I build on these critiques and prior analysis of the Karen in Thailand, there has been change on a variety of fronts and in some small ways this research documents such change. With regard to forest governance, for instance, community forests are now facilitated by Thai law and in the case of the Salween area, the RFD officials that I spoke with were supportive of communities, at least those who did not degrade the forest, and several local officials contributed to the NGO-led Salween Study.

Borders, Boundaries and Security

In addition to these histories of timber, the political border is an important part of the area's history and a significant facet of everyday life. Because the river is a border, much of the everyday riverine livelihood activities are entangled in the institutional functions and maintenance of the border. For instance, the river-border is policed from both banks. In order to travel between two villages on the Thai side of the river, boats heading either up or downstream from the main pier (located at Mae Sam Lap, see Figure 1.2 Location of Hatgyi dam and study

area along the Thai-Burma border) may pass through a number of checkpoints on either side of the river. I experienced this when travelling to the 2009 public forum as part of a larger group and also when travelling to my field site on a regular basis. Thai border guards, the Karen National Union (KNU), and the Democratic Karen Buddhist Army (DKBA) under the Burmese Border Guard Force all maintain intermittent check points. In addition, boat traffic is only allowed on the river from 8 or 9 am until 5 pm. Traders, fisherpersons, and tourist or other transport launches are not allowed to be on the river outside of these hours.

As I experienced on a regular basis, security—both personal security and national security—is also entangled with daily experiences at the border. In the media coverage of the 2009 public forum I introduced at the start of this chapter, the village leader is quoted as saying that the impending construction of dams on the Salween River is believed to have led to "escalating warfare along the border which has caused new influx of refugees into Thailand and other human abuse committed by the Burmese government against local ethnic population." (13 July 2009, *Matichon Daily*)

In terms of security, most often I witnessed and heard stories of conflict in Karen State between competing militarized groups – DKBA, KNU, and the Border Guard Force – and its intermittent spillover into Thailand. Sometimes these events were ultimately innocuous, if unnerving; other times they were deadly. I write about some of the perplexing manifestations of security fears in Chapter 7. For instance, the Hatgyi subcommittee developed a new Terms of Reference for further study of the dam impacts in Thailand as a result of the public information hearings. This ToR acknowledges that there are potential impacts of the dam to Thailand. However, it refers to residents at the Salween—who participated in the hearings—not as

villagers or stakeholders, but as potential refugees or immigrants, which essentially positions residents as less 'legitimate' stakeholders.

However, my most shattering experience with militarized conflict at the border in 2010-2011 took place rather publicly and unexpectedly: shells were fired just across the river at the start of one of the public information hearings for Hatgyi dam, with a whole array of military officers, government officials and others in attendance. The hearing went ahead as scheduled, meanwhile my host family moved to an underground tunnel while I, at the hearing, was temporarily whisked away by border police officers who were scared of losing face because a "foreign tourist" was injured under their guard. This example of my rather limited experience with conflict at the border in no way compares to the experiences of coping with these issues by residents at the Salween over decades of armed conflict in Burma. However, these experiences— both of the everyday checkpoints and the larger displays of conflict—certainly influenced my analysis and understanding of what was at stake for these residents, how difficult their fight was to remain in this area (against conflict, in addition to development), and the significance of their investments in environmental governance and with state-like institutions.

These themes are discussed throughout the dissertation, although in a less personal way. This is intentional, I am not interested in presenting a kind of fetishized or voyeuristic border experience along the lines of Rambo's epic journey along the Salween River into Burma. Instead, I am interested in how narratives and experiences of security have been mobilized and for what ends, a discussion that I carry out in Chapter 7 in regard to the ways that refugees and migrants have been positioned as part of the governance processes of the river-border, and to their recent repositioning in the Hatgyi EIA's new terms of reference.

Recent Electricity Developments: emerging articulations of governance

The river-border, with all of its expectations, constraints and violations, is at the center of discussion in the decision-making processes of the Hatgyi hydroelectric dam proposal. Among the many actors involved in this development, Thailand's state electrical authority has perhaps the most at stake in the way that the political border is defined. Ninety percent of the electricity would be sold to Thailand; the remaining ten percent is to remain in Burma. Part of the debate over whether this project will proceed focuses on whether the dam, a short distance downstream of the length of the river that serves as the international boundary, will flood that border. Following Article 190 of the Thai constitution, any project that proposes to disrupt the country's political border requires parliamentary approval. In addition, Thailand's 2007 Constitution has requirements to consult village communities on large development projects.

Questions raised about the dam's impacts on the political border resulted in repeated modification and extension of the decision making process that must precede the development. The 2009 establishment by the Thai Prime Minister's Office of a Hatgyi Subcommittee occurred largely as a result of continuing concerns about the development's cross-border effects. The subcommittee was mandated to address those questions; in 2011 it organized public information hearings meant to provide project details to stakeholders in three Thai districts adjacent to the river-border. The Hatgyi subcommittee was composed of 19 members, including EGAT officials, Ministry officials, the environmental consultant who carried out the Environmental Impact Assessment (EIA; see ERI 2008), five civil society representatives including NGO staffers and a member of the National Human Rights Commission of Thailand, and one military officer. The audience was mostly comprised of village headmen and residents from affected districts in northwestern Thailand.

These public information hearings in 2011 were quite different from the 2009 public forum. For instance, there was no electricity at 2009 meeting and there were no PowerPoint presentations, whereas the 2011 meetings were a deluge of presentations by EGAT officers, environmental consultants and government officials. In 2011, the space for "villagers" to speak was limited to the question session at the end of each hearing.

However, as I alluded to in introductory chapters, a host of projects have emerged to contribute to decision-making about the dam, to document Salween ecologies, and to counter narratives about the Karen and forest destruction at the Salween that I introduced above. Some of the participatory knowledge projects that have emerged at the Salween, and that I discuss in more detail as part of this dissertation, include Villager Research (Chapter 4) and the Salween Study (Chapter 7). Both projects include Salween residents as researchers to document a kind of natural history of the Salween.

In the Salween Study, research from residents is combined with additional research conducted by experts. Sometimes the research was conducted together, between the outside experts and residents, facilitated by NGO staff. In the Salween Villager Research project, local residents from 50 villages in the Salween basin worked together to document village histories and ecologies.

Villager Research "relies on direct involvements and knowledge of grassroots villagers for explanation on various relevant issues with support from environmental NGOs as research assistants" (SEARIN 2005: page 1 of executive summary). The Villager Research methodology has posited that local people know more than 'outsiders' about their histories and about the ecological resources they use regularly, and that as a consequence they should be the lead

researchers in documenting a kind of natural and social history of the area potentially impacted by the proposed dams. As part of the research process, NGO staff take photographs and notes as research assistants and work together with "villagers" (*thai baan* or *chao baan*) while information is collected, systematized, and written down. These natural histories are then re-told/re-presented for interested individuals and groups, and circulated as text within Thailand and internationally. I describe Villager Research in more detail in the next chapter, which focuses on this program as an important, contemporary process that produces not only politically powerful information, but "villagers" themselves.

SECTION 2 MAKING MAPS AND PROMISES

In Section 2, *Making Maps and Promises*, I introduce the maps and promises concocted by a variety of actors, including dam developers and officials involved with the planning of the dam. I also consider the involvement of NGOs in local research projects and in making maps and mediating and translating narratives about dam development.

Through this dissertation research, even I (re)produced maps and made promises to local residents and activists.[1] Considering that maps and promise making figure prominently in participatory knowledge projects, development decision-making, and environmental governance, they comprise a significant aspect of the analysis in the following two chapters. In Chapters 4 and 5, I consider the ways that the nation and the village are re-imagined through the practices of making ecological knowledge, including but not limited to mapping, alongside the promises of inclusion of development. For instance, in Chapter 4, I consider how making "villager" knowledge, including mapping villages, is part of the process of making "real villagers". In Chapter 5, I examine the role of promises in making development projects. I consider how the promises and narratives of dam development are "packaged" in and through the map and, drawing on work in science studies, I argue that maps can be understood as an *inscribed* promise.

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[1] This includes promises to provide copies of my research to residents, to NGOs, and even to officers at EGAT.

CHAPTER 4 THE VILLAGER

Introduction: Real Villagers, Real Knowledge

Villager Research (*ngan wijay thai baan*) is explicitly about documenting riverine ecologies in the face of impending development, particularly dams.[1] In this chapter, I argue that is also about making villagers. Often called in shorthand simply 'Thai Baan', this methodology sees local residents or "villagers" systematically document ecologies "from the bottom up" with the assistance of NGO staff. Developed in Thailand, it has since circulated across Southeast Asia. At the center of my analysis of Villager Research is how it is simultaneously part of efforts to create legitimate ecological knowledge and of struggles to achieve political legitimacy. In other words, the work to make "real knowledge" and "real villagers" is tied together as seen in the practices and performances of Salween Villager Research.

The ethnographic work presented here elucidates these struggles. It also demonstrates the strategic moves to remake villagers as knowledgeable subjects with political authority, rather than as knowable objects or subjects at the fringes of politics. Positioned within a longer history and extensive study of the village and the villager in Thailand, I argue that villagers are being remade in significant and even "revolutionary" (Haberkorn 2011) ways. The efforts of those participating in Salween Villager Research present a challenge to a long history of defining the villager as "stupid"—an uneducated, unruly "other" (Winichakul 2000)—as a problem for the state and elite, and as an individual that requires tutelage and intervention from outside in order to participate or exercise their rights. That villagers are "stupid" is an ongoing theme in their portrayals in the media, and is referenced in academic scholarship. Even sympathetic media

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[1] Thai language the full term is [งานวิจัยไทบ้าน] "*Ngan wiijay* [research] *thai baan* [villager]". Thai Baan is a Northeastern word that translates as villager; in Central Thai it is "*chao baan*".

accounts carry forward this portrayal; a 2010 newspaper article in *The Nation* titled "Rural Thais are no longer ignorant" suggests that villagers are challenging the ways that they have been "stereotyped as uneducated water buffaloes" (Rojanaphruk August 22, 2010). Within this chapter, I draw out key points in the emergence of the villager in Thai history and position Villager Research within this history as a significant move to consider the villager as a knowing subject.

In addition, Villager Research at the Salween is principally carried out by members of the Karen ethnic "hill tribe" (literally mountain people or peoples), once thought of by the Siamese/Thai elite as an "uncivilizable", "inferior race" who is only at home in the forest (Winichakul 2000). The research model empowers these residents to now identify and be identified by others as rights-bearing villagers.

While these arguments make a contribution to Thai studies, taking a step back from the particularities of Thailand these arguments can also speak to larger debates in political ecology about participatory knowledge production and development. I build on insights from literature on citizen science, indigenous knowledge, and subject making (Fairhead and Leach 2002, 2003, Martello 2004, Tsing 1999) to consider and contribute to how subjects are made in relation to environmental rule and ecological knowledge production (Agrawal 2005a, 2005 b, Li 2000, Moore 1998, Luke 1999, Bryant 2002). Drawing these literatures together, one of the main tensions that I identify in the new construction of the "real villager" is a rift between the "decidedly local roots" (Martello 2004) of participatory knowledge and its aims at wider application. Villager Research collaborators must navigate these tensions in order to successfully mobilize the position as villager.

I also want to be clear from the start about how I position this assessment of subject making: what I present here is a sympathetic but critical analysis that focuses on the struggles of marginalized groups to occupy the position of rights-bearing subject. These struggles, like the overall focus of the dissertation, are about both rule and resistance. As Haberkorn's recent study (2011) highlights, working within the political system as an "outsider" was and can in fact be "revolutionary"; these moves to transform entrenched ideas about political authority also carry with them a great deal of risk. Her work traces the ways that students and farmers "transgressed their origins in order to become politicized subjects and to work together" (2011:18) Haberkorn argues that "Paradoxically, by working *within* the terms of the system, farmers and students launched a challenge more destabilizing than an attempt to smash the system directly would have been"(2011: 18).

The challenges by farmers and students saw over 30 members of the Farmers' Federation of Thailand assassinated for demanding changes in land tenancy. While Villager Research is taking place more than 30 years after the farmer's mobilization and ensuing violence that Haberkorn describes, that there still exists "collective silence" (Haberkorn 2011:7) on these assassinations underscores that there continues to be much at stake in reimagining the relationships between the Thai state and its rural population. Evidence of this ongoing struggle are the continuing political protests, introduced in Chapter 3, which are also focused on reimagining rural people's relationships to and within the Thai nation-state.

Making subjects? Conceptual approaches

In this analysis, my reading is not simply that villagers make knowledge, or that knowledge makes villagers; I focus on how the co-constitution of 'villager' and 'knowledge' is effective in repositioning the villager as a knowing subject and a political agent through this context. To do

so, I draw on Jassanoff's reading of the interplay of knowledge/power. Building from Foucault,

she argues that

> What we know about the world is intimately linked to our sense of what can we can do about it, as well as to the felt legitimacy of specific actors, instruments, and courses of action. Whether power is conceived in classical terms, as the power of the hegemon to govern the subject, or in the terms most eloquently proposed by Michel Foucault, as a disciplining force dispersed throughout society and implemented by many kinds of institutions, science and technology are indispensable to the expression and exercise of power. (2004: 27)

I draw on Jasanoff's emphasis of the mutually constitutive role of "knowing" as related to action

that shapes and is shaped by subjects and institutions. In addition, I draw on insights from

investigation into environmental subject-making (Li 2000, Tsing 1999, Martello 2004) and

"environmentality" (Agrawal 2005a, 2005b). Some scholars see studies of subject-making as

less-agentive than identity-making (Truelove 2011, Silvey 2004; see also Chapter 8). To address

the issue, I draw on Agrawal's decidedly multivalent understanding of subject, as something at

the intersection of "agent", "actor", and "subordinate" (Agrawal 2005b: 162), in order to further

the dissertation's focus on the agentive and productive possibilities of co-production.[2]

Because of the efforts that local residents put into a project that sees them identify as villagers,

and not for instance, as indigenous, as 'tribal', or as citizens, I am also motivated to investigate

the co-constitutive making of village subjects and knowledge. Part of my argument is that

identifying as villagers is an important, strategic, and potentially even "revolutionary" move to

remake the "villager" from within an existing category, utilizing its existing political

relationships.

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[2] Agrawal also argues that failure to attend to how subjects are made misses understanding the struggle to work from within, or in relationships to, institutions such as the state (2005a: 225-6).

On knowing and ignorance

A wealth of alternative approaches to making ecological knowledge have emerged to counter the more conventional, scientific studies accompanying development projects.[3] These alternative formulations include citizen science, local knowledge, and indigenous or traditional ecological knowledge. Villager Research maintains common elements with these approaches, but also builds on the particular experience of participatory development in Thailand. Some have even compared Villager Research to citizen science (i.e., Herbertson 2012). Citizen science is conducted by "amateur" scientists to monitor local environments, such as water quality monitoring in rivers and streams, normally relying on laboratory equipment and collection of quantitative data (see also: Verran 2011, 2012). However, I believe that there is an important contextual distinction in this context between "villager" research and "citizen" science that deserves attention.

In Thailand, a focus on "not knowing" has been of particular relevance in the political realm, as seen in Bangkok and in Thailand's Northeast, where villagers are called "stupid" for supporting the ousted Prime Minister Thaksin (Keyes 2012: 355; see also Streckfuss 2012: 322). Undesirable election outcomes more generally are also blamed on ignorant villagers (Elinoff 2012: 383), who have been called ignorant, apathetic, traditional and poor for selling their votes (Bowie 2008). Self-identified "villagers" recognize this framing as a way to keep themselves from being effective in political organizing, and reflect on its meaning for their relationship with the government, "The government is slowing us down. They call us stupid and as a result they take whatever they want, it is their mind-set [*withikhit*]" (quoted in Sopranzetti 2012: 362).

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[3] I follow Gururani and Vandergeest's framing of ecological knowledge as "truth claims and related claims to technical and political expertise about the dynamic relationships among the flora, fauna, peoples, hydrologies, soils, geologies, and other biophysical activities in a landscape" (*forthcoming*).

While the "stupid" villager has appeared and reappeared, less attention has been paid to the villager as a "knowing subject" (although see: Chitakasem and Turton 1991; Vandergeest 1996), which makes the Villager Research a novel approach.

However, in Nepal, Pigg (1992) has paid particular attention to the ways that the village and villagers are positioned with regard to ignorance in the context of international development. She argues that "The social construction of the villager is built on this theme of ignorance…[villagers are identified as] as "people who don't understand." (1992: 506-7).

Pigg's analysis of these constructions in Nepal is that "The "ignorance" of villagers is not an absence of knowledge. … It is the presence of too much locally instilled belief. What villagers lack, according to this way of seeing the villager, is a consciousness of more cosmopolitan, developed ways" (1992: 506). This is an important point and it reflects the sentiment of the aforementioned comments within Thailand, namely that villagers do not understand the Thai democratic system. In Pigg's analysis, because the villager is both the object of and the problem for development, the only way for villagers to become 'developed' or 'modern' in Nepal was for individuals to no longer identify as villagers.

This analysis has posed an interesting counterpoint for my own analysis and understanding of the "villager" as a subject with political authority that is strategically remade and mobilized through Villager Research. There is another side to the "stupid" villager; in Thailand villagers have a long-standing relationship to the king and to the constitution. For instance, writing on the emergence of the royalist Village Scout movement in Thailand, Bowie argues that the rather intensive initiations created new unified subjects who felt an intense connection to the monarchy (1997). While many were fearful of the initiations, they still participated based on a number of motivations. She explains that for the landless poor and smallholders this included intrigue, the

possibility of making connections with wealthier "villagers" and because as villager-subjects, "should overwhelming problems arise, they might have a better chance of having their letter read by the king and thus receive special assistance" (1997: 253). Villagers continue to be important within Thailand socially, politically, and culturally. It is a frequent statement by politicians and the monarchy that rural villagers—under the parallel rubric of "farmers"—are "the backbone of the Thai nation" (see also: Haberkorn 2012: 26-31, Larsson 2012, Walker 2012).

To consider the coproduction of knowledge and subjects, I turn to insights in political ecology. I examine some of the key texts below from work on indigenous knowledge and citizen science in order to better understand the tensions in making villager research, mainly focusing on literature at the interface of making knowledge, development and subjects. I also position consideration of the making of the villager as a contribution to what Agrawal (2005a: 209-211) has argued is a lack of substantial attention to subjectivities or to subject formation in political ecology.

Studies of indigenous and ethnic peoples and their knowledges

The work to consider the making of subjects and identities in political ecology has usefully examined ethnicity and indigeneity with natural resources management and access within Southeast Asia (Dove 2006, Lowe 2006, Vandergeest 2003, Li 2001, 1999, Walker 2000, Tsing 1999, Brosius et al. 1998).

Li seeks to understand why some groups in Indonesia identified as "indigenous" or fit themselves into the "tribal slot," while others would not, at a time when the Indonesian state had declared that indigenous people did not exist (2000: 7; see also Dove 2006). She argues that

> a group's self-identification as tribal or indigenous is not natural or inevitable, but neither
> is it simply invented, adopted, or imposed. It is, rather, a positioning which draws upon

historically sedimented practices, landscapes, and repertoires of meaning, and emerges through particular patterns of engagement and struggle. The conjunctures…[realign] the ways they connect to the nation, the government, and their own, unique tribal place, are the contingent products of agency and the cultural and political work of articulation (2000: 151).

In her analysis, Li emphasized group efforts to connect to nation, to government and to place. Similarly, Tsing (1999) shows how Indonesian tribal elders are "made". She examines collaborations and strategies, concluding that "(re)creating the role of tribal elder is indeed a political project. It is tricky ground for individuals to manoeuvre: to maintain some type of "traditional roots" and at the same time "a longing for change" (1999: 179).

Both Li and Tsing invoke tensions in representation similar to the projects to make villagers at the Salween. This is particularly evident as related to the tensions to fit the "tribal slot" and the struggles to navigate entrenched definitions of what it means to identify as indigenous, ethnic, or tribal and the possibilities of recreating how those categories are redefined.

Studies of citizen science

Considering two cases from Africa and the Caribbean, Leach and Fairhead (2002) focus on what they see as essential differences in the "manner of contestation" between citizen science and indigenous knowledge.[4] Rather than "dismantling the divide" (Agrawal 1995) between knowledge systems, Leach and Fairhead contend that the distinction is illustrative of both the lineage of these participatory approaches, and their relations with, for instance, government officials or experts. For instance, in Trinidad "citizen science implies a certain engagement with, and dominant discursive role for, the science of expert institutions" (2002: 308). This is contrasted with a project in Guinea, where "there appears to be greater autonomy and dissonance

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[4] Examining citizen science on its own, Fairhead and Leach argue that it works to reformulate what a responsible citizen does and how they engage with policy making and environmental governance processes (2003: 235).

between knowledge systems, in line with the emphases in IK [indigenous knowledge] literature" (2002: 299). In other words, it is the historical and social context of the location through which knowledge making unfolds in addition to the approach's (citizen science versus indigenous knowledge) perceived relationship with science that influences how useful participatory knowledge can be in engaging with state and scientific institutions. What I aim to consider, and what Leach and Fairhead attend to less, are the ways that these different "manners of contestation" shape both how knowledge is used, and how subjects are made (see also Fairhead and Leach 2003).

In this vein, Martello, drawing on Jasanoff's conceptualization of co-production (2004), examines the "arctic citizen" as it is shaped in relation to global climate change science. In her assessment, while a focus on the impacts of climate change has tended to frame arctic citizens as passive victims, "Vulnerability analysis frames human subjects as citizens connected to particular places and communities and recognizes that what counts as a vulnerability depends upon what particular people value and view as worthy and in need of protection" (2004: 111). Martello highlights the possibilities for collaboration and for reimagining citizenship that are afforded through the global connections that the arctic citizen makes in the course of producing climate change knowledge—observations that resonate with insights from Tsing's (1999, 2005) emphasis on collaboration. In thinking about Villager Research, a key point for consideration is political possibility and the historical position the villager affords.

It is also significant that the work of Martello and Fairhead and Leach reiterates the significance of "place," or of being rooted in a particular place, that is also raised in the discussions above of the tribal or indigenous. For instance, Martello (2004: 114) argues that:

> The citizen that emerges in response to global change science has decidedly local roots. …In other words, they are re-imagining the foundations of their citizenship by acquiring new environmental knowledge.

While highlighting collaboration, at the same time Martello's analysis of the "arctic citizen" draws on longstanding literature that has constructed indigeneity as a maintenance of local roots (for critiques of this reinforcement of local and tradition in constructions of indigeneity in Cameron 2012, Nadasdy 2005). This, again, highlights a tension that Villager Research grapples with.

In the case of Villager Research, this is the tension that exists between being rooted to a spatial location, for instance the village as a location between city and forest (*pa* and *muang*), and aspirations for a kind of 'universality' that would see the insights from the research applied at multiple sites and scales. Similarly to Martello (2004), I highlight the ways that knowledge and subjects are co-produced, in order to understand how "villagers" are made through these programs. Let me start with an introduction to the "villager" as a way to introduce some of these themes and tensions of environmental subjectivity, political authority and knowledge-making in Thailand.

Making villagers

In this section, I draw out different contexts through which "villagers" have been created and recreated in Thailand. I am not aiming to present an all-encompassing history, but rather to demonstrate that villagers do not just exist, for instance, as people who live in the village. Villagers are made and remade in particular ways, and I consider two considerable shifts in the historical construction of the villager. The first shift occurred at the end of the 19th century, which saw villagers (*chao baan* or *chabannok*) and forest people (*chao pa*) "created" and defined in pejorative ways by colonial practices (Winichakul 2000, Kemp 1991, 1988). The second shift

I discuss is the 1980s turn to participatory governance and decentralization by the Thai state, community culture advocates, and a range of other groups.

It has been argued, separately, that colonial encounters and the modern Thai state had a great impact on the "creation" of both villagers (Kemp 1989, 1991, Hirsch 1989) and "forest peoples/hill tribes" (Laungaramsri 2001, Vandergeest 2003). However, I argue that it is insightful to consider their emergence together, and how the understanding of these categories has both endured and been "remade" through some of the same practices, actors, and histories (see also insightful analysis by Winichakul (2000) of the role Siamese colonial elite). This is particularly important to elaborate as the impetus for the move, by residents and their assistants in Salween Villager Research, to identify as "villagers".

1890s Siam

Turning to examine the village in 1890s Siam (present-day Thailand), Kemp explains that the village administrative system was adapted from the British-style of colonial rule of India. Kemp has, rather provocatively, argued that the "myth" of the Thai village was created at this time by the work of actors (both colonial rulers and academics) and of theories from outside Thailand (1991). This mythical "village community" was communal, but it was imagined as a discrete, bounded entity.

Writing about a similar period of Siam's history (late nineteenth into the early twentieth century), Winichakul examines how the Siamese elite visited and documented the rural populace, encouraged by European colonial efforts to catalogue and categorize their perceived "others". Their descriptions of villagers were

> full of records about landscape, natural features, farms and crops, flora and fauna, and
> about the livelihood of people, their customs, communal activities, occupations, trades,

crafts, and local products...One of the major characteristics of chaobannok was the stereotype of the uneducated and backward folk. (Winichakul 2000: 536)

Winichakul identifies in these 1890s documents several key stereotypes that persist about rural people in Thailand up to today: uneducated, backward, communal, with a strong relationship to nature and to place which poses problems when villagers try to move to the city, for instance. Both Kemp and Winichakul point out how "villagers" are constructed by actors outside the village; villagers' accounts from the period are notably lacking.

Winichakul shows how villagers were indeed positioned problematically, as an "Other Within", but his analysis of the Siamese elite's documentation also showed that villagers were still more familiar, and placed in a separate category, than upland ethnic groups – who were referred to as "forest people" (*chao pa*) (Winichakul 2000: 535-6). For instance, while the villager (*chao baan* or *chaobannok*) was geographically located between the forest and the city (see also: Stott 1991; Vandergeest 2003), the "inferior races" of forest people were located in the "jungle" and thought by Thai elites at the time to be "uncivilizable" (Winichakul 2000: 535). [5] The villager, in contrast, was on his or her way to being civilized. The Siamese and Thai rulers put in place guidelines and policies intending to guide villagers on that path, such as dictating what to wear and how to act (Winichakul 2000: 536).

In the late 19th century, the forest was also redefined. It became valuable, both to the Thai elite and to colonial powers (Laungaramsri 2001: 66-71). Through the definitions and practices of colonial forestry imported and implemented during this time, scholars have identified that a line was drawn between what was "forest" and where people should live (Laungaramsri 2001,

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[5] It is interesting to note that, according to the limited historical record, before the period of these "colonial encounters" in late 1800s that the Karen were characterized as their own independent people (Laungaramsri 2001: 32-40), and that they were excepted from paying tribute to the northern Thai kingdom (Laungaramsri 2001: 38, Marlow, Jorgenson).

Peluso and Vandergeest 2001, Vandergeest, Peluso and Potter 1995). These definitions have had implications through the potential eviction of those people living in areas declared as forest; they have also implied that those who lived in the forest were not people.[6]

Laungaramsri (2001: 42) argues that as a result of the ongoing forest management regimes, forest people were increasingly seen as "ungovernable." As the Thai state developed (Thailand was established as a constitutional monarchy in 1932), it intensified its gaze on its rural lands and peoples, and particularly on those living in forest. It is in this period that the term "hill tribes" (*chao khao*) emerges (no longer *chao pa* or forest peoples). This new grouping included members of many different ethnic groups, such as the Karen.[7] By 1959 "hill tribes" were made an "official" object of concern and object of study (Laungaramsri 2001: 42), particularly with regard to opium production and trade, and to practices of swidden agriculture (see also McKinnon 1969, McKinnon 1983).

1980s Thailand

After a turbulent and violent political upheaval in the 1970s which saw both a series of coups and peasant revolts (see Haberkorn 2011, Bowie 1997), the Thai state's decentralization policies and administrative reforms in the 1980s contributed to a deepening of the importance of the village and the villager, through what Hirsch refers to as "bringing the state in to the village" (1989; see also Hirsch 1991). This move was related to trends toward institutional reform that saw decentralization policies implemented across the globe in the 1980s. Yet, this re-making of

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[6] This is seen even in the community forest debates in the 1990s. It was common at this time for forestry officials to refer to ethnic minorities in Thailand as less than Thai, or as less than human. One impactful quotation comes from a Thai forestry department official from Northwest Thailand, who explained to the audience at a public seminar that "Humans can't live in the forest because human beings aren't animals. Unlike us, animals can adapt themselves to the wild or any environment naturally" (*Bangkok Post,* 24 Sept 1998).
[7] See Keyes (2003) for analysis of the term "Karen".

the village has been characterized as a state-led imposition of administrative authority. Scholars have attended to the ways that the village administrative boundaries were imposed upon differently organized social communities (Kemp 1988) and how this tended to bound and fix the territorial limits of the village (Hirsch 1991). While on one hand this may have produced a better definition of the village's relationship with the state, this construction of the village by the Thai state continued to involve notions of backward, uneducated people in need of help from the state.

It was not only the Thai state that was focused on the village and on participatory development from the 1980s onward; organizations and activists also elucidated their own visions for and about the village. Essential for my consideration of the villager is that notions of the village and villagers have increasingly been promoted through 'modern' participatory development projects, and by organizations and communities seeking to express concern or opposition to state policies and actions (Vandergeest 1996; see also: Hirsch 1989, 1991).

An important example of the work of these participatory approaches is seen in the "community culture" school (*watanatham chumchon*), begun in the 1980s.[8] In Nartsupha's overview on the topic, and the contributors' make claims about villages and villagers,

> [Community culture] is related to a way of life which is in close touch with nature…
> [Villagers] should shake away the bonds of dependence, the bonds of the market system,
> and return to self-reliance; that is to say, the national aim should be changed from
> production for export to production that allows everyone to have sufficient [sic]…and
> only then the surplus can be exported. (Bamrung Bunpanya quoted in Nartsupha 1991:
> 121).

These key tenets—of independence from "outside" cultures or forces, of a focus on agricultural subsistence, and of villagers being close to nature—are echoed in what Prawet Wasi, perhaps one of the best-known advocates of the community culture school of thought, identifies as its main

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[8] More recently, this "anti-foreigner" rhetoric is also draw upon in discourses of sufficiency economy, for relevant analysis and discussion see Walker (2010, 2012).

characteristics. He adds, however, that the community culture school "is anti-state" (Nartsupha 1991:124).[9]

In sum, the overarching intervention of the community culture approach was to push the recovery of the core attributes of village "culture". The notion that "The villagers have originally had this self-reliance but they are now losing it" (Aphicaht Tho'ngyu, quoted in Nartsupha 1991:124) formed the basis for intervention. In this case it is not intervention from the state that is required, but rather from community culture advocates. An important critique of this approach is that by constructing the village as "anti" or separate from state or other institutions, it obfuscates possibilities for types of development or for relationships that will be successful in creating institutions that better engage with "villagers" (Vandergeest 1996: 298).

However, the community culture approach also shares similarities with the state approach that it was meant to counter. While both the community culture approach and Thai administrative reforms had villages at their center, "villagers" seem rather left out of these visions for constructing a more democratic governance and future development alternatives. In fact, these constructions require and rationalize intervention from outside the village, positioning the villager as a problem in need of solution (Elinoff 2012, 2013, Pigg 1992).[10] Villager Research differs from those models in significant ways, particularly regarding who gets to define

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[9]The moves by NGOs are strikingly similar in rhetoric to the Thai state's land policies in the 1800s to 1930s that attempted to limit the threat of outside influence on land holdings (Larsson 2012).

[10] This identification of the problematic position of the villager also resonates with foundational work on the peasant (Wolf 1967). In Wolf's (1967: 15) analysis, the peasantry were positioned to perform both forms of local subsistence (to differentiate the village from the city) but also to conduct trade and commerce (to differentiate the village from "native" groups). Wolf referred to the work to accomplish these dual performances the "perennial problem of the peasant".

villages and to know about them, and these are differences that I will draw out further in my ethnographic data.

Today, academically there is more attention paid to the villager in their move to and new place within the urban landscape. Recent academic scholarship has commented on the messiness of earlier villager constructions, while also contributing to the category's durability, with such additions as: the cosmopolitan villager (Keyes 2012), urbanized villager (Naruemon and McCargo 2011), the mobile villager (Sopranzetti 2012, Hickey 2010, Mills 2012), and the villager as a "not yet" citizen (Elinoff 2012). These contributions point to the enduring historical constructions of villager, and question how and why villagers are understood to be lacking resources and living in poverty (Keyes 2012, Walker 2012), and why they are still portrayed as rooted in place and tradition (Sopranzetti 2012, Hickey 2010, Mills 2012). In addition, notions of the "flexible peasant" (Santasombat 2008) and the middle-income "political peasant" (Walker 2012) are recent attempts to think about the different ways of classifying Thailand's rural populace.

In fact, Walker contends that today, in contrast to villagers as "anti-state" or fearful of the state, in his research "political peasants" sought out government projects to help support their own objectives, and were not only involved in political mobilizing but were well-informed of national elections and politics (2012). In contrast to some of the ways that peasants and villagers have been portrayed historically, Walker argues that today's "political peasants" want "to attach themselves to the power of the state, not to avoid it" (2012: 57).

The debate over the "real villager" continues and even within this new literature on the "political peasant" and the "urban" villager there is an implication that those who reside in the countryside and work the land are more "genuine". This notion is reinforced in recent popular

media, including the Thai television show "I will become a farmer" (*Chan ja pen chao na*). In this program, we see a movie star return to the "village" in the countryside to better understand her relationship with her food. While she encounters some challenges, the show mainly perpetuates elite stereotypes of the village as "primordial" and as distant from the urban center.

Elinoff, drawing on work in Thailand's northeast, concludes that in the present day "those considered villagers (the rural and urban poor, ethnically non-Thai, and spatially distant from Bangkok) are betwixt and between designs and discourses thus requiring interventions to prepare them for citizenship. Villagers have emerged from the wild and dangerous forest but have left the village for the city" (Elinoff 2013: 132). Much of the rest of this recent work similarly invokes citizenship as part of the analysis of "villagers" and focuses on the northeast (i.e., Keyes 2012, Sopranzetti 2012, Elinoff and Sopranzetti 2012, Hickey 2010, Mills 2012). While not necessarily a "new" shift, in my analysis this work is part of a valuable move to consider villagers as rights bearing individuals.[11]

I recognize and build on the aforementioned insights on hill tribes and citizens, but in this instance I have intentionally focused on the villager as a subject category on its own, not necessarily the "not yet" citizen on its way to becoming one. I do not include discussion of citizenship here in part because the term citizen (*ponlamuang*) was not regularly used, referred to, or mobilized as part of Salween Villager Research.[12] I have not heard audience members at a hearing or a protest identify as "citizen". Instead, individuals introduce themselves as "villagers"

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[11] I note that "hill tribes" remain a largely derogatory construction (for analysis of discourses of hill tribes in urban places, see Hongladarom 2000). While There has been movement on the rights of people to live in the forest, as a result of collaborative efforts between activists and rural peoples, there still exists important critique.There are strong critiques of the ways that these movements have discounted the political and agricultural authority of rural peoples (Walker 2001, Forsyth and Walker 2008).

[12] There is also confusion in this context how "Thai/Tai" points to both nationality and ethnic identity, and tends to give membership in the Thai nation a racial character (Streckfuss 2012, Vandergeest 2003).

or "locals". In my assessment, one possible reason that the villager carries more significance is precisely because it draws upon the ways that it has been imagined as a "problem" (Elinoff 2012, Pigg 1992): 'unruly' villagers demand (or require) the state, or NGOs, to do something. Both the Thai state and NGOs are concerned with a villager in a different way than they are with a citizen. It would almost seem disempowering to hear a speaker at a protest identify as a "citizen", because the connotation is that they are already embedded within the state and have given their consent for the state's ongoing activities, including its development projects. Underlining the significance of the villager in present-day Thailand, my review of the 2007 Thai constitution shows that there are more instances of the word "farmer" (*chao na*) or "villager" (*chao baan*) than instances of the word "citizen" (*ponlamuang*).[13]

As such, my contribution within this historical trajectory of villager studies in Thailand is to consider the work by those "villagers", and their NGO and academic collaborators in northwestern Thailand. Villager Research challenges the definitions of villager as uneducated "other" and shows how villager empowerment still plays on the villager as a problem that requires intervention. As a move to draw political legitimacy from knowledge, this work by villagers can also challenge entrenched ideas about "where villagers belong", as I draw out further below.

Villager Research: making and performing the village as site of knowledge

What is Villager Research?

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[13] In addition, Bowie, who has extensively research local elections in Thailand, has pointed out that "villagers have been voting in local elections since at least 1897, long before their urban counterparts" (2013: 781, see also Bowie 2010).

The main idea behind Villager Research can be seen in this quotation by a "villager" at the Mun

River in Thailand from one of the first Villager Research books, published by the NGO

SEARIN[14] (2004: 13):

> We are the ones who suffer from all the negative impacts. We are the ones who
> are directly affected. Our lives have been destroyed by the dam, but when fish
> and nature are restored to the river, our lives are restored too. We are trying to
> make other people see and understand the impacts of what has happened since the
> dam gates have been opened. And so we thought of documenting the impacts of
> opening of the dam gates by doing our own research. If outsiders conduct
> research, we are afraid that they will not see the full picture, and will not consider
> all issues of the impacts from the dam because they are outsiders who live in
> cities and do not understand our lives. They do not know about fish, the
> ecosystem, and the Mun River like we do. If they conduct research, they have to
> come to observe and interview us. Therefore, we decided to do our own research.
> – Thongdham Chatapan, village researcher

This basic premise argues that not only should villagers be the ones conducting research (as

'insiders'), but that the village is a site of knowledge, rather than a site where knowledge should

be gathered or applied. It also challenges the seemingly standard rhetoric that villagers are

"stupid".

Many residents involved in the project at the Salween reiterated that the goals of their

project were to raise awareness among others in Thailand and internationally about the "worth or

value" of the Salween River in the context of the proposed Salween dam projects, and at the

same time to "keep knowledge in the village" (*kepkwamruu way nay moo baan*). The Villager

Research books produced by the project to inform distant decision-makers are also to be used in

local schools.

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[14] SEARIN (Southeast Asia Rivers Network) is also known as Living Rivers Siam. It is an organization based in
Chiang Mai, Thailand and was involved in the first Villager Research projects and subsequently involved in
trainings at other Villager Research sites within Southeast Asia.

The actual process of Villager Research begins at each site by establishing the framework through a series of meetings organized in the village by NGO staff, who serve as research assistants. For example, while fish species and fishing practices have been the most prominent subject of Villager Research, such projects need not exclusively focus on fish. The Salween Villager Research project included topics that were not part of the 'original' project that took place at the Mun River, such as data collection on forest animal species.

At the Salween, Villager Research can be seen as emerging partly out of critiques and understandings of participatory development, and partly out of the community forest movement. That movement has received criticism for placing the Karen people's way of life on a pedestal, "romantically" portraying rural life in ways that can discount their political authority (Walker 2001, Forsyth and Walker 2008). Those involved with Villager Research are cognizant of existing critiques, and are particularly aware of the critiques of Thai academics' "romantic scholarship" (see for instance, the exchanges between Walker 2001, 2004 and Laungaramsri 2001). Professor Chayan, who has been involved with Villager Research since it was first envisioned around the Pak Mun dam in northeast Thailand, explained in an interview that they have aimed to find a balance between local knowledge and science. He disclosed that "… we [villagers and academics at Pak Mun] actually suggested to define and make clear the methodology and to consult with the experts, in order to increase reliability. However, in the methodology, you can also start to understand the villager's point of view, their cosmology. Their perspectives enter into the symbolic meanings and struggles (of science, for example)." He explained that this push for reliability is also connected to "doubts that villagers can really produce knowledge".

Villager Research in practice: at the Salween

The Salween Villager Research project has been conducted over the course of several years starting around 2003. It has since been presented in multiple formats, including a book (SEARIN 2005), posters (see Figure 4.1), and videos, and also in connection with another study, called *Salween Study*. This short explication of Villager Research in practice, accompanied by the quotations about Villager Research offered below in sidebar ("In Other Words," pages 79-80), provides a description of the practices and processes of the Salween project. I highlight several issues: the aforementioned tensions in the research aims; the manner in which villagers are made as the research program relates to the village, the state, and the NGOs; and expressions that emerge from this program and these relationships about what a villager can "know".

One of the main motivations for the Salween Villager Research project were EGAT's proposals for the Salween dams and for a water diversion project. As one Research Assistant explained, the impetus for collaborating on Salween Villager Research came when the Salween dam proposals were revealed. He had been part of a local NGO that had been doing community organizing around forest issues, but they were not sure what to do or how to organize around dams. He says,

> We discussed this [Villager Research] because we wanted to know how to fight the dams. [Based on experience with forest issues, he knows that] If we just say "we don't want the dam" (*may aow khuan*) it won't have enough weight – not enough reasons why we don't want it. But, if the dam happens there will be big impacts to the natural resources and the traditional livelihoods of villagers will disappear. So we want to do something.

One "villager" further explained that part of the impetus of the project was directly related to what they saw as EGAT's poor engagement or acknowledgement of the village: "[W]hen EGAT first came here 5 years ago, they didn't look very far, they didn't see all the houses. They only counted 23 houses along the river." As I explained in Chapter 3, EGAT's initial studies of

Figure 4.1 Salween Fish Species Poster produced from Salween Villager Research.

the Salween area documented only 23 houses along the river, while the villagers' map presented at a 2009 public forum showed over 60 villages.

Salween Villager Research started with a workshop in the district town near the Salween, to which village heads from all Salween villages were invited. After this initial workshop, there were meetings in each of 50 villages on both "sides" of the lower Salween. After these village level meetings, the working team (lead villagers, translators, and NGO "Research Assistants") went to each house in the village to talk with individuals. The initial questions inquired about the kinds of livelihood and other activities "villagers" performed on a daily basis.

As a result of the initial interviews and interest across the basin, it was agreed that the research would focus on five main issues: fish species (of the Salween and its tributaries), riverbank gardens, herbal remedies, ecology (rapids, aquatic animals, forest species, community forests), and farming (or *rai*). These key issues are seen in *Salween Villager Research* (2005), the first book to emerge from the project.

This information was collected by villagers in their daily activities. Some used cameras to document species of animals and plants, others kept records, and others provided their research data verbally to NGO staff. Additional information was recorded that was considered more of a "background" or history, including stories of the villages and local beliefs about each issue. Villagers would then come together in meetings to discuss and decide, for instance, what each fish species is called in Karen and Thai languages. Researchers were also divided up by group depending on topic, although one researcher could be in multiple groups. I asked one of the lead Village Researchers about how this was decided. He explained that,

> Villagers decide on their own….Each village decides what are the most important things [for research, like the framework] but really – there is a lot of exchange and they choose some of the same things as other villages. Then we decide on the area. Villagers from other places come too. Those who are experts (*cham nan*) about [for instance] fish or

herbal remedies… For fishing, we go down to the water and go fishing. For herbal remedies, they go to the forest. "This plant is this, it does this". .. Villagers know themselves "who is who" – [villagers] know who is the local doctor. This person likes to fish, [villagers] know.

I participated in some of the processes of making and mobilizing Villager Research. I will also present data gathered through interviews conducted after the fact, to provide some reflections about Villager Research by those who had participated in the program, and to explore the significance they ascribed to it. I also saw that, of course, not all people in the villages participated in the program, and even some of those who participated did not take ownership of the project or identify with it later. I discuss this issue further in Chapter 8.

Villager Research in practice 1: Making it "Real"

Why should villagers and villager research be included in decision-making? In interviews with individuals across Thailand, a pattern emerged in their descriptions of Villager

IN OTHER WORDS

"So, I would like to explain [to Vanessa] that the "Thai Baan" research is valuable because **it is the fact from the real thing**." (Elected Official)

Question (Vanessa): "In your opinion, what's the difference between TB and the kind of research that was used in the forums. So-called "expert" research. Is there a difference?
Response: "Well, actually I never joined any kind of "expert" research. But I can say that normally, they use an interview methods (sob taam) With regard to analysis, mostly done by doctors or professors – it is performed after the information is collected, those who do analysis later are "experts". But for us, we do not use interview method (sobtam) – **we use the real experience**. They tell us about their experiences or stories, and we use that. The information comes from villagers. Whether or not information is correct, this comes from the villagers too. After we do research, we organize a forum to discuss the information we collected. For example, we show photos and discuss if this fish is called this name. True or not? Assume that this house/village (baan) says it is called one thing, and another "baan" disagrees. Then, we have to discuss what it is really called, for sure."(NGO Research Assistant for Thai Baan project)

Question (Vanessa's RA): how do you get the end product? All the fish names?
Response: well, **villagers explain it**. Why this fish is called this or that. Maybe it has to do with a very fine detail…look at that line, that mark. Villagers start their observations with that." (NGO Research Assistant for Thai Baan project, same as above)

Research as "the real thing" from "real" villagers and their "real" experiences. Pointedly, even an elected official argued that "Thai Baan research is valuable because it is…the real thing" (see the IN OTHER WORDS sidebar for additional examples). In emphasizing the authenticity of both villagers and their research, the official also emphasized that Villager Research needed to be considered in decisions that were being made about the Hatgyi dam.

Highlighting this connection to decision-making, local residents at the Salween have been identifying themselves as villagers – not indigenous peoples or citizens – when making claims and demands upon the state to, for instance, halt the Hatgyi dam project. One letter about the dam, signed by 2,000 villagers in 19 villages and read aloud and presented to the Prime Minister, makes explicit this connection. It reads, "On behalf of the villagers in Sob Moei and other communities in the Salween River Basin, we demand that the Electricity Generating Authority of Thailand (EGAT) and

IN OTHER WORDS

"We are there, eating with the villagers but the process is that we follow every issue of the village. Also, we have villagers do the real thing. We talk all the time, not just once. **If you just go to interview, don't see the real thing**." (Translator for Salween Villager Research)

"[The process of Salween Study] was similar and different from Thai Baan. Similarities – mainly that the villagers do the research themselves on the issues in their own area, like way of life, local knowledge of natural resources, the villagers make the questions on their own, and then go around the village and collect information, bring it together. The differences with Salween Study are that we have experts from outside come in to add in some issues, not that we have only villager's issues. For instance, we also looked at archaeology, ecological systems, fish species, bird species. … For instance, **regarding ecological knowledge – the villagers, they will have one set of knowledges about this, and the experts, they will have another set**. They can explain this to the local area." (NGO staff working on *Salween Study*)

"One important thing is [Thai Baan] reaffirms a social dimension to local livelihoods, not just how many fish, where, etc like SIA, not just EIA. It involves interaction of people, community involvement and awareness raising. It is a narrative about social life they discuss with each other and with **outsiders through their own authority**." (Academic)

the Thai government immediately stop the project to construct Hatgyi Dam on the Salween

River" (Village Leader, quoted in 13 July 2009, *Matichon Daily*; see also Salween Watch 2010).

Several scholars (Kemp 1989, 1991, Vandergeest 1996: 288, and Elinoff 2013: 105-6)

have examined this "authenticity" narrative about villagers at different points in Thailand's

history. These scholars show how links to "rural authenticity" have been central to counter-

movements, such as the community culture approach, that counter "the state" and

"modernization"; they have also shown that this authenticity narrative tends to reinforce the

"primordial" notion of the village as always existing as part of Siamese or Thai culture. As such,

this narrative has tended to relocate villagers in the past and to reinforce the notion that they are

not a part of the nation's urban center.

I understand the authenticity narrative deployed in this context as connected to legitimacy

and to the authority of rural people to make claims on the state. Interestingly, it draws on the

notion that villagers' knowledge is authentic and carries authority because it comes directly from

experience, and it is even presented in contrast to "academic" interviews of villagers to ascertain

facts. But then, based on this locally rooted authority, villagers are put in relationship to

"outsiders" – consultants, developers, and the state – in ways that require them to circulate and

apply villager knowledge outside the village and to identify as villagers in meetings and

hearings, as demonstrated above. They become authorities who are at once entangled in both

"primordial" histories and global discourses on development decision-making.

Villager Research in practice 2: Becoming a villager: from "hill" person to "villager"

Part of the significance of the Villager Research project at the Salween is that ethnic Karen and

their NGO advocates are representing themselves as "villagers" (*chao baan*), as compared to

"hill tribes" (*chao khao* or *chao pa*) or "indigenous" or "ethnic" communities (*chon puenmuang* or *chonpao*).

This shift has been accomplished in a number of ways: in the execution of a program of Villager Research and in recording local residents' knowledge under the title of "villager"; in the processes of making village maps, of constructing a narrative about the village for publication, of textualizing data collected into Thai language, and of including this knowledge as part of environmental campaigns against the dam; and in the public meetings where dam-affected residents are called upon to speak as villagers.

One of the key ways that this has been accomplished is by locating residents in villages. Activists working in this area have referred to the communities along the Salween as "off the map" because they have not been included in official surveys or maps. One of the components of Salween Villager Research was the mapping of villages, homes, agricultural areas, and areas of ecological significance.[15] Moreover, meetings with the Research Assistants were held and organized in the village, village by village, and experts were identified at village level meetings. The maps produced through these efforts insert previously "off the map" subjects into a grid of intelligibility (on the possibilities and difficulties of "counter-mapping", see also: Peluso 1995, Walker and Peters 2001, Hodgson and Schroeder 2002, Roth 2007). Although they make these spaces legible (per Scott 1998), they also make it possible for residents to make legitimate ecological claims as "villagers". In this way, villager research helps make villages, and make villagers "eligible" both to be compensated and to make claims on the state.[16]

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[15] However, the results published focused more on ecosystem identification than the villages themselves.
[16] There are presently multiple organizations working to both map villages and count residents, not only related to Villager Research but also related to separate applications for "community land titles" and for citizenship applications which require residence in a village and the signature of the village headman.

However, making villagers is more complicated than simply locating people in villages. As part of the Villager Research network, "experts" are also asked to travel to meetings to present their research and to share their experiences with the Villager Research process at multiple locations. In these instances, villagers act as representatives of their village, but also stand as experts with knowledge to share that not only applies in the village but is applied in other locations and is referenced by other experts. In the time that I was conducting research, two important meetings were the August 2010 Villager Research Network meeting in northern Thailand, and the 2010 Salween Festival.[17] I argue that villager participation in these meetings is significant in reshaping entrenched ideas about the location of the village, something that I will expand upon in the next section.

Villager Research in practice 3: Performing villager-ness

In November 2010, I participated in the "Salween Festival." Located in the city of Mae Hong Son in northern Thailand, the festivities included a photography exhibit and a seminar that included an appearance by a local movie star, in addition to the participation of individuals associated with the Mae Hong Son NGO Network and "villagers". All of these participants came to speak about the "beauty and value" of the Salween in order to raise awareness of the proposed Salween dams.

My aim in presenting parts of this festival is to briefly explicate the ways that the villager was performed within the Salween festival, as a key to thinking about how the villager is remade.

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[17] Part of this "travel" also has to do with ways that the research circulates as text. While I discuss the environmental impact assessment (EIA) for Hatgyi dam in more detail in Chapter 7, I want to note here that the EIA includes information from and references Salween Villager Research (in addition to the *Salween Study*). The EIA's references to Villager Research may represent the further circulation of this knowledge to a larger audience, but it was the EIA and not Villager Research that was required reading for the Subcommittee on Hatgyi, tasked in 2009 with finding out the "truth" about the project.

That villagers also locate themselves outside the village is important; it shows how they cross a spatial line of expertise. This move to position themselves and their expertise outside the village also conveys what a villager can know.

Village researchers travelled outside of their villages to the provincial capital of Mae Hong Son by bus. This festival was not exclusively related to Villager Research, but it was the first public meeting outside of the

Figure 4.2 Cover of the 2010 "Salween River of Life" booklet with villages shown.

villages to which I had traveled with villagers during my fieldwork. The Mayor of Mae Hong Son (*nayok tesabaan*) opened the seminar. He spoke about the booklet that they had produced for the Salween Festival (See Figure 4.2: Cover of the 2010 "Salween River of Life" booklet with villages shown), explaining that the organizers had "made sure to include maps of the villages. Villages are important. However, we might not see these in the future" (6 Nov 2010).

There were several presentations, and a discussion that saw the participation of a retired forestry official, villagers, academics and activists. The audience at the meeting was not larger than 40-50 people. Before one academic presented her research about the archaeology of the Salween, she asked the audience "How many people are from the city of Mae Hong Son"? About

10 people raised their hands. Most of the other individuals in attendance then identified as villagers (*chao baan*), many from villages along the Salween.

The moderator of the seminar, a local celebrity, started to open the floor to questions, but instead a group of secondary school students from Mae Hong Son rushed in ready to present a play on the "Salween Village" that they had written as part of a community theater project. This play began with the students acting out scenes in village life. They acted as "villagers" working the *rai* (upland rice fields) and clearing their riverbank gardens. You could see that it was hard work, the students were wiping their brows. We were then introduced to other scenes, other locations outside the village. In one scene, police officers or border officials checked the villagers' identification cards as they returned from working as hired laborers on road construction projects outside the village and in the city. One villager had the money he had just earned taken by the border officials.

To close the play, the students came together to make a wave action, and left the stage; a wave of water washed them away. The play was well-received with a long round of applause from audience members – people from Mae Hong Son and "villagers" alike.

The details of the performance were based on interviews that the students had conducted during a trip the previous month to one Salween village where I was staying and conducting my own interviews. The scenes of the play represent what was brought up during their interviews. The ways that the students showed "villagers" labouring both inside and outside the village is notable considering the fixed notions of the village that have circulated in Thailand. In informal conversations, students emphasized that they identified villages with struggle, most notably

contesting the proposed dam projects in order to protect their village.[18] While associated with the village, villagers were not necessarily expected to be fixed in the village or in the past.

At the conclusion of the play's performance, the students thanked the villagers for teaching them not only about the village, but about more wide-ranging topics. In particular, one student mentioned that he had learned more about Bangkok and Chiang Mai, and about dams. The Mae Hong Son students admitted that before their visit to the village they did not really know where their electricity came from or how it was generated.

Taking a step back from the play and the meeting, I believe that the performance as a whole is demonstrative of a larger narrative shift. As opposed to past efforts to "teach villagers" how to perform as "real" villagers or how to fight to conserve nature, the school students recognized and identified with the opportunity to "learn from the village". In this scenario, villagers have knowledge to be taught, circulated, and applied, and this is now an element of what it takes to become or be recognized as a villager.

I am not arguing that these struggles are complete or uncontested. As I discuss in Chapter 8, there remain questions about whether all villagers are created equal. However, I am arguing that, positioned against efforts to remake the "old" characteristics of villagers, this new narrative challenges entrenched ideas about what villagers can know and, in a sense, where they can perform these acts of "knowing". These moves rely on strategies that combine a need to be local with an obligation to travel and circulate—villager knowledge draws its legitimacy from both the specified local experience and from its availability to be performed and applied wherever its presence is requested in bureaucratic and executive decision-making. This is at the heart of the

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[18] It is interesting to note that no one stepped in to "save" the villagers from the flood or wave at the end of the play.

tension of making "real" villagers and knowledge, which I engage with directly next in discussion.

Discussion

While not beyond criticism, Villager Research is refreshing insofar as it positions the villager as a knowing researcher, rather than the object of research or the problem to be solved by development or other interventions. This move to remake villagers is particularly significant in the case of Salween Villager Research in northwestern Thailand. Located near to the political border with Burma, in the Thai province of Mae Hong Son, these knowledge projects have taken place in an area where residents have not historically been deemed villagers, but hill tribes.

The solutions to existing patterns of governance that Villager Research offers are not "anti-state" (like those previously proffered by the community culture school) but instead make demands of and engage with state and non-state institutions. In fact, Villager Research has been effective in capitalizing on what these constructions afford them politically, particularly in terms of the legitimacy of the claims that individuals who come from villages can make upon the Thai state. In addition, I believe that the reason that Villager Research has circulated to so many sites within Thailand and Southeast Asia is precisely because it mobilizes and reworks an existing villager identity, with political rights and connotations, as part of its more general knowledge claims.

Villager Research carries a history as well; in that history, a tension exists between a knowing subject who is at once locally rooted and struggling to be more widely accepted and authoritative. This is a tension that scholars have pointed to within work on indigenous knowledge (Li 2000, Tsing 1999, Nadasdy 2005, Cameron 2012) and citizen science (Martello

2004, Fairhead and Leach 2003). In my sympathetic assessment, Villager Research is not

eschewing either the particularity of the village nor the universality of a scientific approach; nor

does it position knowledge as limited to one village or to "the" village as seen in the ways that

experts travel and that the methodology travels to multiple contexts. Instead, the impetus for

Villager Research is to (flexibly) redefine who is a villager (while adamantly identifying as one);

this form of action has a history of political effectiveness, as seen in Thailand's history of

campaigns that have succeeded in getting the state to intervene or pay attention to villagers

(Bowie 1997, 2008, Missingham 1997, Haberkorn 2011, Walker 2012).

I also argue that the construction of villagers as knowing, as opposed to "ignorant",

subjects is also an important part of the way the villager has been remade. Because I was focused

on ecological knowledge from the start of this research, it would be misleading to suggest that

the theme of 'knowledge' (and ignorance) emerged organically out of my research data. Yet, I

witnessed over and over again how individuals identified themselves as villagers, and how this

shaped the way they were constructed with regard to having knowledge or making claims to

knowing. For instance, speaking space in meetings and government hearings was rooted in the

"villager" position as knowledge-able subject: able to speak about and on behalf of the "village".

This reiterates what I noted earlier, that in meetings and at protests in Thailand, people identified

not as citizens or indigenous peoples but as villagers.

I also demonstrate that the shift that Villager Research represents is about more than a

redefinition of 'village-state' relationships, in that a myriad of additional actors (some which

identify as 'non-state') are involved. As such, Villager Research as a case also contributes to

scholarship on co-production, advancing our understanding of how the "villager" is made and

sustained (Jasanoff 2004: 3-6). This matters because it is an understanding of how these

constructions are made that reveals that they are contingent, not fixed, and that they are open to the agency of the subjects themselves. In my assessment, Villager Research is making ecological knowledge and making villagers in ways that invoke possibilities and embrace changes to broader ideas about who makes legitimate claims to know and to govern.

CHAPTER 5 MAPS AND PROMISES

promise 1. trans. To make promise of; to give verbal assurance of; to undertake or engage, by word or writing addressed to another person, to do or refrain from (some specified act), or to give or bestow (some specified thing): usually to the benefit or advantage of the person concerned. Often with dative (with or without *to*) of the person to whom the promise is made.[1]

At each of the 2011 Hatgyi public information hearings, the Hatgyi developers and environmental consultants presented their respective PowerPoint presentations about the dam and its projected impacts (see Figure 5.1 Image from 2011 Hatgyi public information hearing). EGAT promised (*sanya*) that it would not allow any "harm" to come to Thailand (transcript 8 Feb 2011). Alongside these promises, maps were a crucial part of delivering EGAT's message; maps provided a visual inscription that showed the dam's impacts and flooding would not reach Thai soil (i.e., would not cross the border from Burma into Thailand).

Maps and promises like these were made throughout the meetings, public information hearings, and personal conversations surrounding and constituting the dam decision-making process. They bring to light a consistent facet of Thailand's claims to and about the Salween River: that dam development on the river, with the national economic benefits it anticipates, will not come at the cost of other harms to Thailand. At the same time, Thailand's representatives claim

Figure 5.1 (Right) Image from 2011 Hatgyi public information hearing, presentation of map.

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[1] This definition is from the OED 2nd edition. I present it in order to highlight that both benefits and relationships are part of this act of making promises.

for the nation a role in 'protecting' the Salween River and dam-impacted residents in Burma and China from their domestic authorities. As part of the planning process for a dam that has not yet been built or even approved, these maps and promises are inevitably made about the future.

In this chapter, I make two arguments. Calling attention to the role of making promises in dam development, first I argue that making and presenting maps and promises together are effective for enrolling an increasing number of actors in imagining the future. I consider their differences, and draw out how the ephemeral qualities of the verbal promise and the more durable construction of the map provide a more effective platform than either on their own. My second argument is that some, but not necessarily all, maps can be understood as inscribed promises, and that this also has implications for how those promises circulate and travel.

To present these arguments, I draw work from science studies on inscription and the production of "hard facts" (Latour 1990, Fujimura 1992, Jasanoff 2004) together with geographical critiques of mapping and the ground-breaking scholarship on Thailand that has contributed to broader geographical and cartographic understandings of the nation—*Imagined Communities* and *Siam Mapped*. In particular, I consider the role of dam development, not in its infrastructure but in the promises that it makes and in what these promises, made in and alongside maps, accomplish for the nation. By bringing these literatures together to inform an analysis of the map as an inscribed promise deployed in development planning, I contribute to geography's conceptualization of mapping and to literature that considers the role of development in imagining national futures. This matters because maps as inscribed promises enrol a wider audience than either alone. It also matters because these imaginaries and their inscriptions shape what is possible (Fujimura 1992).

These maps and promises also maintain a particular significance in Thailand, where understandings of state-village relationships are the subject of continued contestation and negotiation. For instance, EGAT's promises about "protecting" Thai people from "harm" invoke images and discourses of a paternal Thai state (Thak 1979, Haberkorn 2011) and its rather patronizing approach to individual rights ("father knows best"). This kind of village-state relationship differs from, for instance, the notion of the villager as a rights-bearing individual or citizen that I discussed in Chapter 4. Whose narratives are inscribed, and thus circulate more widely, is what is at stake here, and this matters because it is those inscribed narratives—about the state, about development—that become "fact".

In addition, and this is not limited to Thailand, development activities have been and remain central to the remaking of the nation (see, for instance, Hirsch 1990), shaping how individuals identify with and imagine the national community. For instance, the "good of the nation" was invoked multiple times in my research. Precisely who or what identifies with and can reimagine the national community may be particularly fraught in this case at the border, where the spatial characteristics of the nation are made stark. In my analysis, the Hatgyi process came to figure prominently in how those at the Salween border imagine themselves within (or without) the national community.

Conceptual approaches to mapping and making nations

Geographers have long considered questions of what maps do or accomplish. Maps have been understood not simply as abstract representations of reality, but as constructions of reality that have implications for our understanding of both what exists and what is possible. They can serve to fix in time and space otherwise dynamic natures or moving peoples, to exclude people, to define boundaries around territories, and to define the categories and territorial limits of what

is considered under rubrics like 'nature' or 'forest' (i.e., Vandergeest and Peluso 1995, Peluso 1995, Roth 2007). These constructions have enduring implications, as seen for instance in our subsequent inability, once a map has been produced, to effectively redraw boundaries or to 'untie' resources from these boundaries (Walker and Peters 2001).

In Thailand, maps have been assessed both in relation to claims on resources and territory (Vandergeest and Peluso 1995), and to their role in "imagining" the nation (Winichakul 1994, Anderson 1983, 2006). Anderson's insights into the nation (1983, 2006) as "an imagined political community" (2006: 6), read alongside Winichakul (1994), are particularly useful here. Anderson (1983/2006) showed how individuals, not just states, were essential to creating the colonial or post-colonial nation-state; Winichakul's work (1994) showed how this nation-state was spatialized.

My contribution is to consider how present-day development activities remain central to the remaking of the nation, shaping the ways that individuals identify with and imagine the national community. While many large-scale schemes of development or conservation may fail in planning or in operation, their existence does not fail to extend state rule or to forge relations between residents, government officials and developers. Li argues that "While these projects may or may not bring in "development" (improved livelihoods, greater productivity, roads and services) there is no doubt that "development" brings with it administrative and coercive machinery of the state" (1999: 17).

My arguments are less focused on coercion and more on enrolment, and I discuss this further below. This clarification is important because, for instance, residents I interviewed who were against the dam, were also open to forging relationships with many different actors who could help provide better infrastructures, better teachers, and electricity to the village – all of

which might be considered "bringing in development". This clarification is also imperative because as part of my overall approach, I examine how actors can engage in projects of rule and resistance, often at the same time, and focusing on the "coercive" particulars tends to frame these rule and resistance as separate processes (see also Li 2007).

Also important here is the interplay between Winichakul and Anderson regarding maps as a "reproducible" technology. Map making was essential to the creation of Siam: the nation did not exist as such, to the world and to itself until it was mapped (Winichakul 1994). Maps made Siam legible to the world as a bounded entity. Anderson re-examined this important point in his revised text (2006), adding an entire chapter to *Imagined Communities* titled "Census, Map, Museum". He identified the map as one of three key technologies that, "together, profoundly shaped the way in which the colonial state imagined its dominion—the nature of the human beings it ruled, the geography of its domain, and the legitimacy of its ancestry" (Anderson 2006: 163-4).

To make his point, Anderson quotes Winichakul's analysis, mainly regarding the productive power of maps:

> In terms of most communication theories and common sense, a map is a scientific abstraction of reality. A map merely represents something which already exists objectively "there." In the history I [Winichakul] have described, this relationship was reversed. A map anticipated spatial reality, not vice versa. In other words, a map was a model for, rather than a model of, what it purported to represent (Winichakul 1994: 17, quoted in Anderson 2006).

That a map might represent something that has not yet transpired but is a model of what is desired, is similarly reflected in Vandergeest and Peluso's contention that "Maps are not just about documenting what exists, but, particularly as part of development planning, maps can indicate a plan and can also make claims about the future" (1995: 389, see also: Wainwright and

Bryan 2009). The 'future' is an essential concern in dam decision-making and planning, where a great deal of effort is put into re-envisioning the future in spatial terms.

Overall, it is the elements of reproducibility, the future, and the ways that maps can 'produce' claims (rather than simply represent them) introduced above that I consider essential for thinking about maps as promises. While there is a large literature on mapping and claims-making, only a limited portion of which is referenced above, this work does not consider inscription and enrolment. The role of promise-making in these activities is even less acknowledged. My aim here is to draw together these literatures on the map as related to the nation, and to the nation as 'imagined community', by drawing in science studies work that I discuss next in order to think about the role of promises and maps *together* (as 'hard' and 'soft' facts) in development planning and in imagining futures. In particular, I am concerned with the explanations about development and national belonging that are inscribed, and with how this accomplishes the enrolment of a greater number of actors in imagining development.

Maps and promises: immutable mobiles and circulation of knowledge

As with the overall dissertation, I approach this chapter with a focus on the ways that knowledge and visions of order are "co-produced" (Jasanoff 2004). To explore these visions of who or what belongs in the mapped nation, I draw together the insights on the role of maps in imagining the Thai nation above with conceptual contributions from science studies regarding translation, particularly elements of inscription. By this, I refer to the process by which ideas of, for instance, nationhood are made portable and durable. I also consider enrolment, how "hard facts" are able to gain more influence over people and things over greater distances and in higher numbers (Callon 1986, Latour 1987, 2005, Fujimura 1992, Sneddon 2003). As Jasanoff notes, a nation is more than the sum of parts: "A successful nation has to be able to produce the idea of nationhood

as an emergent, intersubjective property; without this connection of belief, it remains a hollow construct, ruling without assent, and hence unstably" (2004: 26). I am interested in just how these maps and promises simultaneously capture, enrol, and produce connections between development, the nation, and its subjects and ecologies.

To examine reproducibility, I turn to the work of Latour (1990) and Fujimura (1992) who have examined the importance of the ability to inscribe explanations in order to reproduce them, relying on technical devices such as the printing press.[2] Through these devices, explanations or relationships can be reproduced and mobilized. This is part of the process of producing durable explanation, "hard facts" (Latour 1990).[3] These "hard facts" are not only reproducible but also become generative, in that they continue to gain more power because they circulate more widely and enrol more actors. This matters, for instance, if you want to refute a fact or make a more complicated argument; the burden of mobilization or of getting other actors on your side is a significant reason why some "truths" that have been "disproven" continue to circulate. It is also important to consider this consequence in the enduring implications of maps, where as with other "hard facts" the burden of mobilization falls on those who advocate for different kinds of relationships or explanations to be inscribed. Following from this approach, maps can be

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[2] There are important differences between the work of Fujimura and Latour. Fujimura (1992) argues that the concept of "standardized package" is more useful for thinking about the process through which we construct the social and natural worlds. She argues that Latour's focus on "hard facts" alone ignores the mutability of construction and translation. Fujimura also critiques Star and Griesemer's notion of the boundary object as not considering the solidification of theories as fact, as Latour has. The standardized package is an attempt to think simultaneously about mutability and hard facts. Here, I focus on their insights into inscription for discussion of maps and promises, but as part of future work I will bring together these debates in science studies to address how hard facts, not limited to maps, construct particular social and natural worlds in the development planning process.

[3] In addition, this list includes: (1) inscription, (2) immutable, (3) flatness, (4) scale can be modified, (5) reproducible, (6) can be recombined, (7) can be superimposed, (8) can be made part of a written text, (9) they are 2-dimensional ("can work with geometry"). "The result is that we can work on paper with rulers and numbers, but still manipulate three-dimensional objects "out there" (Latour 1990: 18-20).

understood as "hard facts" while promises, made verbally, are "soft" – less durable expressions that circulate less globally.

One of the tasks that hard, rather than soft, facts better accomplish is enrolment, since the inscribed explanations gain more influence and reach greater distances (see also Burgess et al 2000). In science studies, the precise definition and function of "enrolment" has been debated, and the insights are useful for my discussion. Scholars have critiqued early work (Latour 1987) because it portrayed enrolment as actors accepting the roles assigned to them (see also Callon 1986, Fujimura 1992, Sneddon 2003, Latour 2005). This was deemed problematic (Fujimura 1992) and too "Machiavellian" (Amsterdamska 1990). For instance, work by Star and Griesemer (1989) highlighting that these roles are not "assigned" as much as developed together, through boundary objects.

Fujimura's insights are particularly relevant to this case, as she critiques Latour and Callon for seeing enrolment as "waging war to conquer and discipline new allies" (1992: 170). Instead, she approaches enrolment, as part of a notion of the translation process in which actors work to interest or engage one another at multiple interfaces (similar to Tsing 2005). As noted above with regard to Li (1999, 2007), I am less focused on enrolment as coercive, and more on enrolment as engagement, mutual interest (Fujimura 1992), or the possibility for collaboration (see also Tsing 1999, 2005). This is an important component of the overall dissertation because missing out on these enrolments or engagements in turn dismisses the work done by those struggling to engage or to imagine alternatives.

What I consider are how inscription and enrolment contribute to our understanding of both maps and promises, particularly in terms of their 'abilities' to circulate, enrol actors, and mobilize explanations or narratives. For instance, while promises circulate very well at the

Salween and can be reproduced quite easily (both facets of 'durable' facts', see Latour 1990),

they are also quite easily transformed, or 'mutable', particularly when considered alongside

maps. However, maps as more durable constructions are important as well, and I also discuss the

greater possibilities for enrolling a larger, national audience for these maps.

In the next section, I first discuss the role of promises and what they accomplish. I present

promises on their own first because they have not received much academic attention, and to set

up the examination of maps as promises. As a counter-point to the promises and maps of EGAT

and their consultants, I tentatively consider the work of NGOs in making (counter) maps and

promises. In the final section I consider how maps constitute a kind of promise, and how maps

and promises made together in development are an essential element of enrolling multiple actors

in development and in reimagining the nation.

Making Promises

In one interview, the lead consultant on the team for the Hatgyi EIA reflected on some of the

gifts and promises that he made while conducting an assessment of the Hatgyi project impacts

within Burma. I heard about some of the "important things" that he had to bring when travelling

with his research team. In addition to bringing medical supplies for the team and for local

residents who did not have adequate access to health care, he also noted that they "bring snacks,

for kids in Karen villages." While these gifts might seem small, he spoke at length about these

contributions from the EIA team. He also explained that:

> Now, we [the EIA researcher team] are having troubles of whether or not we will be able
> to enter [the dam site in Burma] to continue doing work, because we promised that after
> [EIA] studies, soon after this, we would come [back to villages around the dam site in
> Burma] to build things, which the Thai government hasn't approved; what can we do
> then? These guys [this could mean: Burmese government, DKBA, villagers in the dam
> site, or all three] remember the promises (interview May 2011).

This consultant distinguishes between gifts (see also: Vandergeest 1991, Mauss 1967) and promises; the gifts were distributed, while the promises are about the "not yet". It is clear that it is not only those in Burma who remember the promises, but also this consultant. I raise this example to introduce specific promises that were made about Hatgyi, to highlight that promises leave an impression (these promises were made several years earlier), and also to complicate the role of the environmental consultant.[4] In my assessment, his worries about unfulfilled promises bring him into a personal relationship with and even highlight his obligation to those affected by the proposed development. In other words, enrolment in the narratives of dam development is not a one-way relationship. All sides are entangled in these promises—affected residents, consultants, and the state and the nation.

In addition to the consultant's promises, there were more insidious promises made by Thai developers, mainly that residents would receive compensation for any damage. Yet there were no agreements or official contracts made with regard to compensation for land or livelihood lost as a result of the dam. I first heard and saw these promises being made in connection to an NGO organized public forum in 2009 ("Hatgyi dam: Is it necessary for Thailand?") which invited EGAT staff to participate along with residents and officials from government and NGOs. I later saw these promises re-emerge in conversations and meetings over a period of at least 3 years.[5] The main narrative was that EGAT was willing to pay high compensation rates for trees, paddy

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[4] This consultant has even written a memoir on his experience conducting research in Burma titled "Follow your heart in Burma" (*tham cay nay burma*). I was informed that publishing costs were covered by EGAT.
[5] EGAT must have started making promises with local residents and local government officials much earlier than 2009 but I do not have any evidence for this. There is a 2005 brochure produced by EGAT that makes claims about benefits of the dam. The brochure was distributed to Thai districts. The Hatgyi Subcommittee had "banned" EGAT from visiting the villages alone because of "false promises and information" in 2009, indicating that something had happened before this time.

fields, houses, and livelihood activities lost as a result of the dam; some people suggested that it would be "as much as it took to get people to agree to the dam".

The persistent circulation of this promise was evident when I visited the Salween River in June 2012, three years after the 2009 NGO-organized meeting where I first saw such promises being made. The leader of one village women's group reiterated the "many promises" that were made by the "people who came to the village". She exasperatedly explained that "They promised they'll pay top price for all our trees. 'Each tree – however much you want, we'll pay you for it.' Jackfruits, coconut trees, whatever." While she was very adamant about the promises, she was also sceptical, noting that "it cannot be true" (field notes 26 June 2012).

Many other residents joined her in questioning the feasibility of the compensation. However, even if these promises will not be upheld, which is common in dam development, this is not the main point.[6] Instead of critiquing the veracity of the promises, I argue it is important to consider how the promise, and its enduring circulation, facilitates dam development, and how it can remain important despite being greeted with widespread and predictable incredulity.

As shown above, promises became part of the conversations of everyday life and persisted over the course of several years. These verbal promises could be altered and go untraced, and they continued to circulate in conversations among residents long after dam developers, NGO staff and state officials left the village.

Based not only on my research at the Salween, but on my experiences with dam development over the past 10 years, promises have been an important in procuring acceptance of

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[6] For examples of broken promises in dam development as a regular occurrence see the World Commission on Dams report (WCD 2010: 225-6, 228-9); for specific examples, see for instance, broken promises made about the Belo Monte Dam in Brazil, see Schertow (2012), Millikan (2012); see Nyein (2013) re broken promises about the Myitsone dam in Burma.

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the developer's or the hired consultant's ongoing presence in the area. Promises "package" a narrative about a dam project, which has negative impacts that will displace people, in more palatable way by highlighting compensation and communicating other benefits of development in a personal way. Over the course of the project, that the dam is imagined in this more positive or beneficial way helps facilitate the project's progress by communicating benefits (not harms) and conjuring hopes about development's (positive) impacts in the future. Making promises also helps the individual consultants, for instance, fulfil their obligations to the project or company by creating relationships with local residents that encourage residents' participation in development.

Considering discussions on inscription and how it increases circulation, the persistence of these promises over several years, even *without* inscription, made me consider seriously the ability of promises to engage and enrol people in imagining development, and to extend ideas about the project to a greater number of people at the Salween. Through these ephemeral enrolments, promises allowed the state and its explanations or narratives of development to be where it was not. At the Salween, this matters because it was those promises about flooding and compensation that kept residents talking about and engaged with development's benefits in personal conversations.

Maps as Promises?

In contrast to the promises made verbally and shared across many conversations and presentations, maps cannot be read or understood by all of those within the nation. However, as inscribed, immutable, 2-dimensional texts, maps can circulate 'globally' (Latour 1990: 18-20) to engage audiences across Thailand and internationally.

As noted, I could not find traces of these verbal promises in any contracts or conventional

texts. The Memorandum of Agreement for the dam states that affected peoples "who are moved"

will "maintain the economical [sic] status not lower than their original status."[7] Yet, this is quite

different from the promises as they were explained to me, and distinct from the hopes that

Salween residents had for improving their status. What I did witness, however, were promises

being made alongside maps as part of the dam development process. Their spatial aspects were

pointed out in these maps. Audience attention was drawn to map features as a proof of argument;

with speakers prefacing their statements with "you see that line there?" Drawing on these

enactments, I consider how maps, too, can be promises.

Some of the best examples of such promises were in the public information hearings

organized by the Thai government, discussed in the introduction. EGAT reiterated that not only

would Thailand be developing the river "for the good of the [Thai] nation", but they would be

helping the "people over there" in Burma to develop. Thailand's electric authority also made

frequent statements at these meetings about its promises to build new schools and medical clinics

for Salween residents in Burma's Karen State. Of course, maps that indicated areas that had been

surveyed and that located villages in need of aid were presented alongside these promises. In my

notes, I also wrote that I was concerned about the maps being misleading in this regard because

the hearings served to solidify these explanations and promises as "facts" that they could "know"

and even locate on a map, even though these promises were about the "not yet." In my notes, I

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[7] For instance, the only documentation that I can locate related to compensation is in the 2010 Memorandum of
Agreement for Hatgyi which only states that "If there are towns, villages, cultivated farm lands, orchards, religious
monuments, monasteries, churches, schools, hospitals, etc, in these provided site-areas which are to be moved, the
following measures are to be taken so as to maintain the economical status not lower than their original status of the
people as mentioned in the EIA who are moved" (pg 7, 3.1.4 - in section f). Let me emphasize: this only states that
status will not be worse; says nothing about improvement. Some of this wording is very similar to the World Bank's
Operational Policy on Involuntary Resettlement (2001).

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wrote that "they presented the PowerPoint, maps and graphics as though they were self-evident." The details of inundation area were not explained, nor was there mention of the uncertainty or contested nature of these claims.

Instead, the spatiality and geographical location of these promises was emphasized. Many times presenters pointed to the maps to support their promises about the area of inundation. For instance, it was often repeated that the authorities "know" that the water will not flood them out, and that they, as affected residents, shouldn't "worry about the flood, or the border". At the time of the presentation, PowerPoint slides with maps that indicate the flooding will stop at the border were presented and referred to and the border as a solid line was given as evidence that the flooding would not reach "Thai soil". This occurred even though many of the individuals on the committee recognize that, at least, the question of impacts to the political border requires clarification, and more to the point, that there is indeed evidence that the dam impacts will transform the political border (see THRC 2009).

The presentation of maps as "self-evident" points to some of the aforementioned critiques of maps. On the one hand, as Tsing explains, maps and their lines "offer a 'common sense' obviousness" (1999: 189), more a declaration of "fact" than a promise. On the other hand, these maps do not simply document 'what exists' but make claims about what will (or will not) happen (Winichakul 1994, Vandergeest and Peluso 1995, Wainwright and Bryan 2009). In my assessment, the maps in these instances were using "both hands": these maps were an inscription of the promise that development would not harm Thai residents in the future. The map—in its role as a 'hard fact' (Latour 1990)—is intimately connected through the processes of development with the more imaginative and non-technical, the more easily mutable promises about development. The map becomes a "new meeting place designed for fact and fiction"

(Latour 1990: 10). However, by invoking Latour's "fiction" I do not imply that these maps are not "real"; instead, as inscriptions Latour would see maps as the "real world". How else, he asks, can we explain how the "people working only with papers and signs become the most powerful of all" (Latour 1990: 29)? Latour argues that "By working on papers alone, on fragile inscriptions which are immensely less than the things from which they are extracted, it is still possible to dominate all things, and all people" (1990: 29).

In this case, maps became a kind of durable, widely circulated promise about what will happen or how development will proceed. While not necessarily 'dominating all things and all people', importantly, I argue that the maps as inscribed promises were more 'powerful', 'durable' and would circulate more widely than either on its own.

This is evident in that these maps received broader circulation than their presentation at one meeting. They were presented as part of multiple public information hearings and meetings about the Hatgyi dam across Thailand. These maps delivered inscribed promises to audiences across Thailand that EGAT would mitigate dam impacts and that the project would not "harm" the Thai nation, emphasizing that the project is to produce electricity for the "national good". This is further demonstrated in the work by NGOs to map the dam's impacts and I argue that these "counter maps" can be understood as revealing the promises inscribed in developer's maps.

NGO activities, promises, and maps

In addition to maps made by and for local residents (which I discuss in Chapters 4 and 6), NGO organizations also made and presented maps about the Hatgyi project in order to raise awareness throughout Thailand and internationally. Among these efforts, a map (Figure 5.2 Map of Hatgyi Dam Flood Area) prepared by the Thai-based NGO Towards Ecological Recovery and Regional

Alliance (TERRA) can be interpreted as a direct response to the EIA map presented earlier in this chapter. In contrast to claims made through the EIA's map and EGAT's presentations, which suggested that Hatgyi dam impacts would not cross the border, this NGO-produced map used EGAT's own hydrology study and information in the EIA to claim that there will most certainly be cross-border impacts from the dam.[8] The map has circulated as part of public seminars in Thailand and in academic work (master's theses, presentations, and this dissertation), and in public meetings, and was shown in NGO presentations to the government subcommittee on Hatgyi. As noted above, the benefits of the map when thought of in terms of inscription are its wider circulation and its potential to enrol or interest more actors in the narrative presented. Indeed, in addition to the presentation in meetings, this map and its message have been made available and circulated online and on social media websites like Facebook.

What I illustrate in this brief discussion of NGO activities is that the maps (or "counter-maps") made by NGO actors challenge the explanation and reveal the inscribed promise that Thailand will not be flooded. They also challenge EGAT's understanding of who belongs in the nation (i.e., EGAT's earlier survey that left out many of the Salween villages).[9]

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[8] In my experiences, even the idea or definition of what is considered "flooded" has been contested. There also still exist questions about why the EIA map portrays the dam as not impacting Thailand and why the NGO map shown in Fig 5.2 anticipates impacts. This discrepancy was raised at several points throughout my fieldwork, including in the public information hearings. One "technical" way this is accomplished is that the EIA compares the average water levels anticipated after dam construction with the "high" water levels of the river pre-construction. This makes a difference as to whether Thailand is impacted or not because the average water level expected post-dam would not inundate as much area as the river does in the high or rainy season, and thus, the impacts to Thailand are envisioned as acceptable or minimal. There are at least two problems with this comparison of the "average" to "high" water levels, however. First, there is a lack of recognition that impacting the seasonal fluctuations of the river will also have impacts on Thailand and even further upstream, in terms of ecologies and livelihoods. Second, there have not been studies conducted in Thailand to support the idea that the forecasted impacts would be minimal.

[9] It is less clear to me that these NGO-produced maps are "promises" in the same way that EGAT made promises, even if these maps and the NGO activities from which they emerged do carry with them expectations.
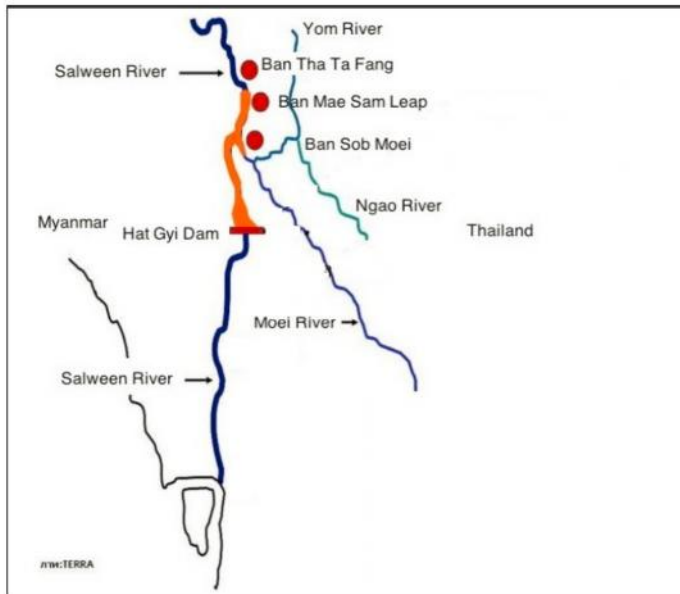
Figure 5.2 Map of Hatgyi Dam Flood Area, TERRA (2010).

The map shown in Figure 5.2 depicts three villages in Thailand and their connection to the river, and relates them to the predicted area that would be impacted by changes caused by the proposed dam and its effect on the river's cycle of fluctuating water levels and flows. In addition, it depicts two tributary rivers (Yom and Ngao Rivers) of the Salween River that extend much further into Thailand and were not shown on the official maps of the project presented at the 2011 hearings. One of the narratives that this map (Figure 5.2) presents is that Thailand will be impacted by the dam, complicating EGAT's assertion that development will be 'good' for the nation without harming it. Connecting these rivers to anticipated project impacts on the Salween brought those impacts closer to the centre of the Thai nation, implying concerns absent in the EIA map and its associated narratives, which appeared to quarantine those impacts at or beyond the national border. While positioning villagers and village land clearly within Thailand may facilitate access to resources for villagers (see Chapter 6), the positioning of Salween villages firmly in Thailand also appeals to the concern about the dam impacting the Thai nation. This underscores, in my assessment, one of the benefits of the map: it engages a broad audience of international publics and Thai nationals, some of who will decide on this project and many of whom, without a direct connection, might otherwise not take an interest in the Hatgyi dam developments and their anticipated impacts.

While these NGO maps spatialized the "threats" from dam development, it is less clear what promises, if any, are inscribed in such maps. I believe that many NGO staff would not necessarily agree with an assessment that suggests that the work they do is a kind of promise, but they would (and have) argued that their work is concerned with holding the state to its responsibilities. Yet, as inscribed alternative explanations, counter-maps become all the more important in challenging standard explanations of dam development.

I raise these points not to make conclusions but to raise questions for further consideration. These promises, maps, and the questions that I raise represent another facet of what is at stake in this cross-border development for remaking and reimagining the Thai nation.

Discussion

We know that maps can lie (Monmonier 1996), and that promises, at least in the history of dam development, are routinely broken (WCD 2010: 228). But to dismiss or critique these constructions solely because of their lack of veracity would be to miss the point of what maps and promises accomplish, particularly in development planning.

I have presented two related arguments in this chapter. I argued that promises made verbally became part of the conversations of everyday life and persisted over several years. As I noted above, promises made verbally played an important role in highlighting the more palatable narratives of dam development, those focused on benefits (not harms). These verbal promises could be altered and go untraced, and they continued to circulate in conversations among residents long after dam developers, NGO staff and state officials left the village. Second, by drawing out some of the distinctions between the verbal promise and the map as a "hard fact", I

was able to point to the more durable construction of the map as an inscribed promise. I suggest that counter-maps might also be understood in terms of the challenges they present and the ways that they can circulate alternative narratives of development.

That some, but not necessarily all, maps can be understood as inscribed promises has implications for how those promises, once inscribed, circulate and travel. Made verbally, promises circulate more informally, for instance, through word of mouth at the Salween. Comparatively, maps are the more durable constructions that can circulate more widely, but to different circles. In this case, I argue that maps as inscribed promises were more effective for engaging and enrolling an increasing number of actors in imagining the future because they could enrol Salween residents but also circulate to far-reaching audiences. For instance, while the maps and promises made by EGAT and the consultants were presented locally, they were also made to travel to decision-makers and could be circulated to broader Thai and international audiences.

While I would not necessarily characterize this as "waging a war" of explanation, or as the pitting of alterative explanations against one another, there *is* much at stake. As Latour notes, these "merely technical" aspects of reproduction can create "everything" (1990). In this "everything" I include the nation, but the nation is not accomplished by maps alone (Jasanoff 2004, Winichakul 1994, Anderson 2006). While maps, particularly maps as inscribed promises, play a part in enrolling local and non-local actors into the tasks of imagining development, who benefits from it, and who belongs to the national project, the promises and explanations inscribed in these maps are also important to consider. Ultimately, whose narratives are inscribed, and thus circulate more widely, is what is at stake here, and this matters because it is those inscribed narratives —about the nation, and about development—that become "fact".

SECTION 3 MAKING TERRITORIES

This next section, *Making Territories*, focuses on the practices of making borders and creating geographical scales. I contribute to broader debates on the production of scale and borders through an approach that considers how both of these geographical concepts—which are assumed to exist independent of everyday life—are in fact continually re-enacted through the practices involved in making ecological knowledge. In both chapters within this section, I consider how specific territorial dimensions of the "local", of the village and of the nation-state are produced through the collaborative efforts of villagers, environmental consultants, and NGO advocates. The borders of Thai territory are very much at stake here, and I call attention to how these borders are paradoxically enacted as solid Cartesian lines and, at the same time, invoked in text and discussions as porous and not yet delimited.

In an attempt to address this paradox, in Chapter 6 I build on a long history of border scholarship in Southeast Asia to argue for a close examination of the "work" of the border by those who reside along and navigate it. In Chapter 7, I address how particular scales are mobilized in ways that produce or facilitate geographic exclusion, and I demonstrate how the scale of the nation is also remade in this work to create and mobilize scale. Rather than understand scale as a "thing" or a "delineated space," I consider scale as an active process that incorporates spatial, temporal and territorial elements to produce and manage the development planning process.

CHAPTER 6 BORDERS AS WORK

Introduction

Where is the border?[1] An older Karen man posed this question during a hearing conducted as part of the decision-making process around the Hatgyi dam proposed along the Thai-Burma border. While the question was asked about one border in particular, it can also be considered part of a larger discussion on political borders. It speaks directly, for instance, to a recent article in *Political Geography* (Johnson et al 2011: 61), which through a series of interventions, pointedly asks "where is the border" in border studies?

In conversation with these questions, I argue in this chapter that residents at the Thai-Burma border are invested in remaking that border through their own "borderwork" (Rumford 2008). In other words, they undertake and are invested in work that manages and remakes the political border, and this runs in contrast to the notion that border residents in Southeast Asia exclusively resist or circumvent the border.

Highlighting the borderwork of residents matters to the study of borders because it shows the extent that conventional border studies continue to privilege the nation-state. Border studies has too often ignored that the processes of bordering and being bordered are often simultaneous and complementary, and occur at scales that are both bound up with and unbound from nation-states. These parallel and overlapping acts, which require the participation and the active narrative and physical efforts of residents, are the concern of this article.

This borderwork also matters to border residents, such as the individual who raised the question of the border's location. Studies that ignore or that position border residents and other

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[1] This question was raised during a Thai government Subcommittee hearing in 2011 to discuss the proposed Hatgyi dam at the Thai-Burma border. I discuss this meeting in more detail below.

actors as peripheral to political borders also ignore their roles as agents in borderwork. However, I am not proposing that residents act independently or are conducting this borderwork alone. Borderwork is an act of co-production carried out in connection with other individuals and institutions.

Drawing work in political geography into conversation with scholarship in science studies, the research presented here conceptualizes the political border as something that is continually performed and enacted. This conceptualization facilitates an understanding of the multifaceted and contradictory work by multiple actors to remake the border, and offers a way to study "borders from the bottom up". Acknowledging and examining borders as work can provide an understanding of the process of bordering and of the potentially overlooked relationships between border residents, officials, activists, and environmental consultants, as all engage with the presence and implications of the political border itself. This approach highlights that borders, in their recognition and daily operation, are accomplishments that require work and that must be maintained through their continual enactment and expression at multiple scales and sites.

The research I present here to make these arguments reflects the two intertwined stories of the Salween River-border in Southeast Asia: that of the political border, but also that of the river as a site and pathway for development. Delimited by the British to clarify colonial forestry operations, modern planning for five to six dams along the river-border poses questions for how the border will be transformed. I argue that the Salween case reveals an opportunity to understand how residents are enrolled and invested in border making. To make these arguments, I draw on ethnographic research and I incorporate and build on the rich literature on borders in Southeast Asia, as part of a move to de-center debates on borders and more seriously consider borders scholarship in Southeast Asian and other (post)colonial contexts.

The remainder of this chapter is organized as follows: first, I provide a more detailed explanation of the study of *borders as work*. Second, I briefly situate this research within the literature on Southeast Asia borders. Third, I briefly re-introduce key points about the research site and methods, and fourth, I illustrate how borderwork is carried-out there and by whom, drawing on three examples: a participatory project called Villager Research done by border residents and non-governmental organizations (NGOs), the work of environmental consultants who delivered the dam's EIA, and the public information disclosure hearings about the proposed dam that followed the EIA's initial delivery. Finally, I bring together the 'work' of these actors to consider the implications and how they inform our understanding of how borders are made as well as the motivations for bordering.

Borders as Work

The move to understand the border as maintained by a variety of actors including local residents, and as done through *work,* stems from my own effort to make sense of the many contradictory facets of research at the Thai-Burma border. The term "borderwork" as conceptualized by Rumford (2008) highlights that borders require *work;* they are created and maintained by the formal and informal labor of real people. This, in turn, builds on scholarship that has sought to understand the border as process and performance, allowing "us to see more clearly that citizens are not always subjected to bordering" (ibid: 10) and rather that the work of a variety of actors might matter to the making of the political border. Rumford treats borderwork in the European context, as "the role of citizens (and indeed non-citizens) in envisioning, constructing, maintaining and erasing borders" (ibid: 2).

This approach highlights the possibility for the border to "be done differently," and, optimistically, Rumford suggests that "borderwork is less and less something over which people have no control" (ibid: 10). It can be seen as part of a broader shift in scholarship towards treatments that do not privilege the role of a central state in bordering, and that highlight border practices as part of our daily lives (i.e., Heyman 1995; Paasi 1996; Donnan and Wilson 1999; Nevins 2002; Balibar 2002; Newman 2006a, 2006b; Walters 2006; Doty 2007; Mountz 2010; Reeves 2011). It also resonates with studies of border residents in Southeast Asia that I will discuss below (i.e., Baird 2010, Turner 2010, Walker 1999, Sturgeon 2004, 2005). While these and other studies might incline us to read power at the border as necessarily more dynamic or democratic, in his discussion of borderwork Rumford also cautions that it "can be exclusionary and by no means always works for democratization or humanitarian ends" (2008: 8). This is an important caution against the easy assertion that as more people become enrolled in border-making, borders necessarily become more democratic (see also: Newman 2006b, Doevenspeck 2011).

To conceptually and methodologically highlight the notions of practice and performance, I bring insights in science studies to speak to 'borders as practice', particularly in their respective emphases on the actions and practices of a variety of actors that work to produce or continually re-enact institutions. Work in science studies has made two important contributions that I draw on in conceptualizing "borders as work" and that I aim to explicate here: *co-production* (Jasanoff 2004; Latour 1987) and *knowledge as practice* (Pickering 1992). However, by looking to science studies I am not arguing that the work to co-produce the 'political border' is the same as 'boundary work'[2] between fields of knowledge to delineate a category known as the border.

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[2] On the topic of Boundary work, see Li (2007b) and Star and Griesemer (1989).

Instead, the arguments put forth examine how knowledge practices and performances are a part of producing or enacting the institution and process of the political border. The idea that the political border is negotiated and remade through knowledge making practices is one way that my research can contribute to larger debates regarding how borders are remade.

Sheila Jasanoff's work is particularly important here. While many scholars have focused on the insights from Latour's (1991, 1999, 2005) work in geography (i.e., Fall 2010, Jones and Clarke 2006 from this journal), I build on Jasanoff's conceptualization of co-production as the mutual construction of knowledge and visions of appropriate order (Jasanoff 2004). Jasanoff's work has been crucial in science studies in understanding how knowledge, policy, and social order are not made independently but are "co-produced" (Jasanoff 2012; Jasanoff 2004; Jasanoff and Martello 2004). This approach "provides, following Latour and Foucault's later work, the possibility of seeing certain 'hegemonic' forces not as given but as the (co-)products of contingent interactions and practices. These insights may, in turn, open up new opportunities for explanation, critique and social action." (Jasanoff 2004: 36; see also: Fairhead and Leach 2003: 14). I highlight these insights and opportunities in the "work" of the border.

The second contribution from science studies that I draw upon is the approach to "knowledge as practice," an approach that proves valuable because it seeks to explain or reveal how the divide between 'discourse' and 'material' is created. This is important for my argument because it highlights that, instead of knowledge-making as a simple documentation the border, knowledge produced at and about the border's social and physical landscape (as occurred in and around the production of the Hatgyi dam EIA) is itself an act of co-production. This highlights the act of re-making to produce something new (or "hybrid") with distinct characteristics (Latour 1999; Haraway 1991).

In this chapter, I trace the performances and networks forged between residents, officials and others who make knowledge about and simultaneously enact the political border. I emphasize the process of making and mobilizing ecological knowledge, including the contestations and negotiations between different actors to legitimize their own knowledge and visions of order. Instead of approaching various actors' borderwork as distinct – or treating practice, performance and discourse as ontologically separate – I bring the insights of political geography together with science studies' instruction to consider how different actors work together. This intersection allows an understanding of the ways that these actors work not only to challenge the border but to productively reinforce or transform it. This is a particularly relevant contribution that draws on and contributes to the Southeast Asia borders scholarship that I discuss next.

Imposed, Resisted, and Used: Borders in Southeast Asia

The literature on borders in mainland Southeast Asia has argued that modern borders and states in Southeast Asia emerged 'radiating from the center' (Walker 1999, van Schendel 2002, Duncan 2004), imposed by colonial powers onto more ambiguous or overlapping boundaries (Winichakul 1995). This scholarly interpretation has been echoed in a frequently stated admonition by campaigners and local residents at boundary sites throughout Southeast Asia that 'we didn't cross the border, the border crossed us'. I want to draw attention to the implications of this ingrained characterization of political borders in Southeast Asia and to highlight what is at stake in this legacy when we investigate the positioning of border residents relative to those borders. I argue that as a consequence of accepting that borders were and are imposed, analysis continues to discount from consideration the part that residents play in enacting the political

border. In addition, it fails to recognize the border as a site or institution that is invested in –

politically, socially and economically – by many different actors.

My focus on the performances of the border as an institution and a site of agency adds to

longstanding work that has emphasized border residents' agency in creating *cross-border spaces*

(Horstmann 2011a, Baird 2010, Grundy-Warr and Wong 2002) as well as in: *maneouvering*

(Sturgeon 2004), *outmaneouvering* (Turner 2010, building on van Schendel 2002, Scott 2009,

Michaud 2010), *ignoring* (Dean 2005), *negotiating* (Turner and Schoenberger 2008; Horstmann

2011b) or *using* (Baird 2010) the political border. Important differences exist, however, between

these arguments and those put forth in this article. I argue that more than making 'use' of the

political border, residents and other agents are integral actors in enacting it – it is their 'work'

that contributes to producing the border.

To introduce this important genealogy of borders in Southeast Asia, I have generalized

three groups of literatures. I will briefly explore their contributions in the following paragraphs,

and then draw out the implications of approaching "borders as work" in contrast to these

literatures.

The first approach to borders in Southeast Asia clearly positions borders as imposed or

imported, mostly drawing on examples from colonial periods in Southeast Asia. Even if many

have cited Winichakul's work in making these arguments (Baird 2008: 597-598), notions of

imposed borders have a longer history in scholarship on Southeast Asia.[3] Prior to Winichakul's

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[3] This notion of borders as imposed, and *Siam Mapped* in particular, have received critique for over-generalizing, and not taking into account local perspectives in boundary making and instead privileging the elite center (most recently Baird 2008, but see also: reviews and critiques in Hewison 1995, Duara 1995, Wijeyewardene 1991, and Walker 1999). While not arguing against Thongchai's main thesis, Wijeyewardene did offer critique that "the traditional notions of borders are more complicated and better defined than he [Thongchai] appreciates." (1991: 169)

Siam Mapped, scholars who presented borders as "imported" and "imposed" included, for

instance, the well-known Edmund Leach (1960), Peter Kunstadter (1967), and Alastair Lamb

(1968).[4] Accounting for the lack of precisely defined territories, Kunstadter contended that "the

boundary or frontier areas were occupied by people who were *not* an integral part of the society

of the central government, though they may have been involved as tributaries, as raiders, or

sometimes as furnishers of forest products" (1967: 19). I emphasize the long-standing acceptance

of borders as imposed because it highlights the ingrained 'nature' of how the study of political

borders has been approached within Southeast Asia borders scholarship since at least those early

post-war studies.

The second approach to border studies has focused on 'resistance' or the ways that

residents have circumnavigated the state and *its* borders (i.e., Scott 2009, Michaud 2010, Turner

2010) as independent agents. As part of a recent special issue focused on "Zomia and beyond,"

for instance, Sarah Turner explores border narratives of the Sino-Vietnamese border, in direct

conversation with the "Zomia thesis" (van Schendel 2002, Scott 2009, Michaud 2010).[5] Turner

"attempt[s] to expose the artificial nature of this border, its porosity, and the means by which

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[4] In 1968, Lamb argued that "At the moment of European colonial impact, it would not have been easy to point to any stable delimited or demarcated boundary in mainland South-east Asia, even though the location of the centres of the power in the region was clear enough."(1968: 42). This notion of 'imposed borders' is brought out in Edmund Leach's 1960 paper The Frontiers of "Burma". Leach provocatively asked if – in Southeast Asia – frontiers existed at all? (1960: 49). The notion of frontier Leach was critiquing was the "European myth" of the frontier as a "line on the map (and on the ground) marking the exact division between two adjacent states" (1960: 49). In the present day, this might be more akin to a political boundary or border, rather than a frontier; although these are not mutually exclusive (Sahlins 1991).

[5] Zomia is considered a large region of Asia that was largely ignored by scholars post-WW2 because it was "politically ambiguous"; van Schendel (2002) explains that this region – largely the borderlands or uplands (as opposed to the heartlands) were both invisible and luminal, they lacked strong central state structures and have been more or less framed as peripheries by scholars, particular scholars of specialists within 'Asia'. Geographically this would include the Thai-Burma border region. The term has been made more popular by Scott's (2009) arguments that rather than being "left behind" these peripheral regions have left the state behind or have "evaded" the state. While Scott makes the disclaimer that his argument only applies up until the 1950s many scholars have found his arguments useful in the present day.

local residents – 'borderline citizens' in both the spatial and metaphorical use of the term – negotiate its being." (2010: 269). The focus on the 'artificial' border resonates with the imposed border, it locates the border as a foreign thing introduced from elsewhere. Further to this point, in the editorial to this special issue Michaud contends that "Borders, by their very political nature, artificially break up the historical social and cultural fabric of trans-border subjects and reduce the validity of country-based findings to what applies to a splinter group, with the larger entity often disappearing beyond the nation's borders" (2010: 209). The authors in this special issue also primarily focus on circumnavigation and resistance to the political border (except Formoso 2010). Their narrative emphasizes how residents work and struggle against the border. While insightful, this emphasis misses the investments that residents may make in borders, and the more complicated forms of agency that arise there. In contrast, my own findings suggest that the Thai-Burma border became more tangible (as compared to artificial, illegitimate or porous) through the practices and performances of residents.

In a slightly different vein, a third group of scholars have been considering the ways that border residents strategically use the border to better position themselves as individuals, communities, or sub-national groups, economically or politically. For example, at the Laos-Cambodia border Baird draws attention to how "the international border has served as a resource that [the Brao] have deployed to gain agency, power over space" (2010: 280; see also Grundy-Warr and Wong 2002; Sturgeon 2004; Walker 1999; Formoso 2010). Baird argues that the Brao are "making unintended *use* of a spatial boundary established by the state" (2010: 280; emphasis mine). Baird's analysis highlights the ways that the Brao ethnic group have used the Laos-Cambodia border to create spaces; in contrast, the arguments put forward here show a form of

local involvement that actually enacts or invests in the institution of the Thai-Burma border itself.

In other words, I argue that more than making 'use' of the political border, residents and other agents are integral actors in enacting the political border. Therefore, while I build on the significant contributions of Southeast Asia border studies scholarship – particularly components of it that aim to focus on the perspective of the border (rather than the center), the importance of micro-practices of the border, and the resourcefulness and agency of residents (i.e., Leach 1960, Kunstadter 1967, Walker 1999, Sturgeon 2004, Turner and Schoenburger 2008, Turner 2010, Baird 2010, Horstmann 2011a), my approach differs in two important ways. First, the conceptual framework employed here facilitates an understanding of not just how the border is strategically used but how it is continually made through border*work*. State-evasion and circumnavigation of border controls remain important expressions of local agency, but as I will highlight residents also express and expand their agency by drawing on, accessing and demanding better from state resources, infrastructures and institutions (see also Dean 2005:808 on 'ignoring' versus resistance). For instance, engaging in borderwork can be a way for residents, non-governmental organizations, and activists to better or more strongly voice concerns about or assert claims to natural resources vis-a-vis the state (see also: Sturgeon 2004). It can also serve to advance local claims to improved personal and community security and recognition from the state. These different potential sites or concerns of 'agency' need not be exclusive; but rather I aim to highlight this potentially overlooked view of the border as a site of agency (see also: Walker 1999). The research I present in subsequent sections highlights the role of residents in bordering and reveals the border as site of agency and personal investment, characteristics that require incorporation into our scholarship on borders in Southeast Asia.

Second, my approach to borderwork also incorporates insights from science studies to highlight the ways that the border is co-produced by multiple actors through their performances. In this way, the political border is an institution that continually requires re-enactment, and I focus not only on the role of border residents, but the work and practice of multiple state and non-state actors within and away from borderlands. This is important to highlight because I will argue that it is the connections or convergences between multiple actors that co-produce a more tangible political border.

Research Site

As I introduced in Chapter 2, intertwined stories of development and bordering inform how we understand the river-border as it has emerged today. The development proposal for Hatgyi, as the first of 4-6 other dam projects proposed along the river-border, poses questions about who and what will be impacted and how the border will be transformed. The case also reveals an opportunity to understand how residents (and others) are invested in the work and enactment of the border.

Of particular concern, the Hatgyi project threatens to displace villages located upstream along the border, in addition to those that are directly adjacent to the dam site in Burma. The border villages are majority Karen and Thai-Karen, a group about whom much has been written in Southeast Asian Studies (Kunstadter 1967, Kunstadter et al 1978, Keyes 1979, 2003, Rajah 1990, Wijeyewardene 1990, Steinmetz 1999, Laungaramsri 2002, Delang 2003, Hengsuwan 2012; Scott 2009; Horstmann 2011a, 2011b, Wilson and Hanks 1985, also see Leach 1960 regarding the Karen more generally). That these communities have lived in the area for generations has been documented through their own ecological knowledge initiatives, but also by

missionaries and historians (i.e., Rajah 1990: 114; Wilson and Hanks 1985). This established position (and the need to defend it) is important when considering the motivations driving border residents to engage in borderwork.

Also important to highlight is that while the Hatgyi is a cross-border project, it is one that works through domestic Thai governance processes. These development projects, and the participatory governance processes that must legally accompany them in Thailand, have often generated a 'standoff' between those supporting the project (EGAT in particular, but other dam developers as well) and 'opponent' NGOs and village representatives.

Yet, as I introduced in Chapter 3, in my assessment the story of the river-border is much too messy to be contained by the clean narrative that there are simply actors working for or against development. Many actors are simultaneously involved in several overlapping processes, including the 'participatory' development process of the Hagtyi dam, and advocacy for or against the proposed Salween dams. These and other concerns have these actors engaging with and at times performing and enacting different institutions such as the state (in the guise of its various responsibilities to know and act in this district) and the political border itself. A variety of disparate motivations drive these actors as they enact – or co-produce – the border, and I draw these out further in my discussion.

In addition to participant observation and interviews, I collected and reviewed documents emerging from several distinct projects that aimed to record ways of knowing about the environment, including "Villager Research" (SEARIN 2005). In what follows, I selectively draw on this fieldwork, highlighting 'ethnographic fragments' (Tsing 2005: 271), in order to demonstrate my main arguments about border making.

The Work of the Border

Borderwork and border residents: Villager Research & Village Narratives

One way in which people residing at the border are important in addressing questions of how borders are enacted and remade emerged through narrations of village histories. This is evident in the ways that various villages along the river documented and are proud of how they have established committees to specifically monitor the border area, and to decide who is allowed to build houses or move to these villages (see also Rajah 1990: 126 citing Renard 1980 re Karen people assigned 'frontier-watch responsibilities'). Anyone moving to these villages from Burma or other parts of Thailand must apply to these committees.

I first heard about these committees in 2011, when an NGO-led group came to visit the village I was staying in. Several men who had participated in Villager Research (more below) were narrating their village's history to the group. One man drew a rough map on a board and explained how the village center had shifted over time, but that villagers were still able to maintain important relationships with Thai officials (field notes, June 2011).

A student member of the group asked how the village accommodates or 'deals with' refugees coming from Burma who want to be a part of the village. The village headman explained that "For those who are relatives or want to marry, we consider them on a case by case basis. But, when a group of people come – like refugees – we send them to the refugee camp." He further explained that they could register for UN cards in the camp, and that he did not want the Thai authorities to see their village as a place that people fleeing from Burma come to in order to obtain Thai citizenship, because this would discredit the village, something "that would hurt everyone in the village" (transcript from recording of meeting/field notes July 2011).

In the context of this paper, these committees are important because they help maintain the border villages as an orderly part of the Thai state. In one discussion, the formation of such committees was compared with one village's decision to construct fencing around house plots in order to indicate ownership, and eventually land title. Both the committees and the fences were considered examples that show that this is a 'legitimate' and orderly village. The presence of the committee in particular illustrated that the village would not just let anyone (i.e., migrants or refugees from the Burmese side of the border) establish residence. This kind of gatekeeping activity undertaken here contrasts with what might be conventionally understood as the state's obligation to enforce or control the border.

Another headman explained that his own village had an important national role, that they were the gate between Burma and this district of Thailand. He emphasized that, "We are the eyes and ears [of the district]; it is important to have people in this village as gatekeepers at the border" (Field notes, June 2011). His positioning aimed to reinforce the legitimacy of his border-community within Thailand, but also demonstrates how residents are doing the work of the state to recognize, represent, and reinforce the border. Instead of more traditional narratives (both scholarly and local) that might describe his community as having been bordered, the headman and his fellow residents are clearly invested in the borderwork.

Through a participatory project called Villager Research (*ngan wiijay thai baan*), local residents from 50 villages in the Salween basin along the Thai-Burma border are formally documenting their village histories, along with local livelihood ecologies, for publication in books and videos. Villager Research "relies on direct involvements and knowledge of grassroots villagers for explanation on various relevant issues with support from environmental NGOs as research assistants" (SEARIN 2005: page 1 of executive summary). As I explained in Chapter 4,

The Villager Research methodology posits that local people know more than 'outsiders' about their histories and the ecological resources they use regularly, and that thus they should be the lead researchers in documenting a kind of natural and social history of the area potentially impacted by the proposed dams. As part of the research process, NGO staff take photographs and notes as research assistants and work together with "villagers" (*thai baan or chao baan*) while information is collected, systematized, and written down. These natural histories are then re-told/re-presented for interested individuals and groups, and circulated as text within Thailand and internationally.

The majority of the residents participating in Villager Research at the Salween River-border are Thai-Karen. It is important to note that within Thailand, the Karen have been precariously characterized as both 'guardians of the forest' and 'nature's destroyers' (Forsyth and Walker 2008; see also Delang 2003). The latter characterization blames them for destroying the forest for agricultural gain, while their vaguely positive idealization as caretakers of nature imposes its own unfair burden to be responsible for Thailand's natural resources. Imposed notions of guardianship inevitably facilitate further blame when the forest is used by locals and non-locals alike.

Similar characterizations prevail in water management, where Walker (2003) argues that blame for drought or lack of water has been fixed on people in upland areas, many of whom are ethnic minorities while leaving the lowland side of demand and water management issues unaddressed. The Karen – along with other ethnic groups including the Hmong and Akha – are more commonly referred to as "hill peoples" (*chao khao*) rather than villagers (*chao baan*), characterizations that are built on long-held understandings that the people living in the borderlands and uplands of Southeast Asia existed disconnected from the center. The prevalence

of such characterizations has sparked discussion about the ethnic-ized and racialized lines of "insider/outsider," particularly in Thailand (Vandergeest 2003).

In contrast to that positioning of Karen residents as outsiders, in the Villager Research project they are considered "villagers" (as discussed in Chapter 4). The incorporation of Thai-Karen peoples along the Salween as "villagers" through this collaborative research project is a significant move to an "insider" position, and one that adjusts their position to both village and nation-state boundaries.

I also saw Karen residents positioning themselves as "insiders" in the process of creating maps and borders in this Villager Research. For instance, a series of maps titled "Ecological systems of the Salween River, Thai-Burma border"[6] show information about important ecosystems documented through Villager Research (see Figure 6.1). The map includes data points indicating where rapids, whirlpools, riverbank gardens, waterfalls, houses, and piers are located; of great interest however is the intentional focus in both the title and the map image on the political border. The border and the river are intricately linked as one line and made the center of focus for each map, and then accentuated by the absence of indicators marking important ecological systems on the Burmese side of the border. In fact, Karen State, Burma, where the dam would also have impacts, is represented as a blank white space.

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[6] See maps 2-4 in *Salween Villager Research* (SEARIN 2005), www.livingriversiam.org/sw/sw_tb_book3map.pdf
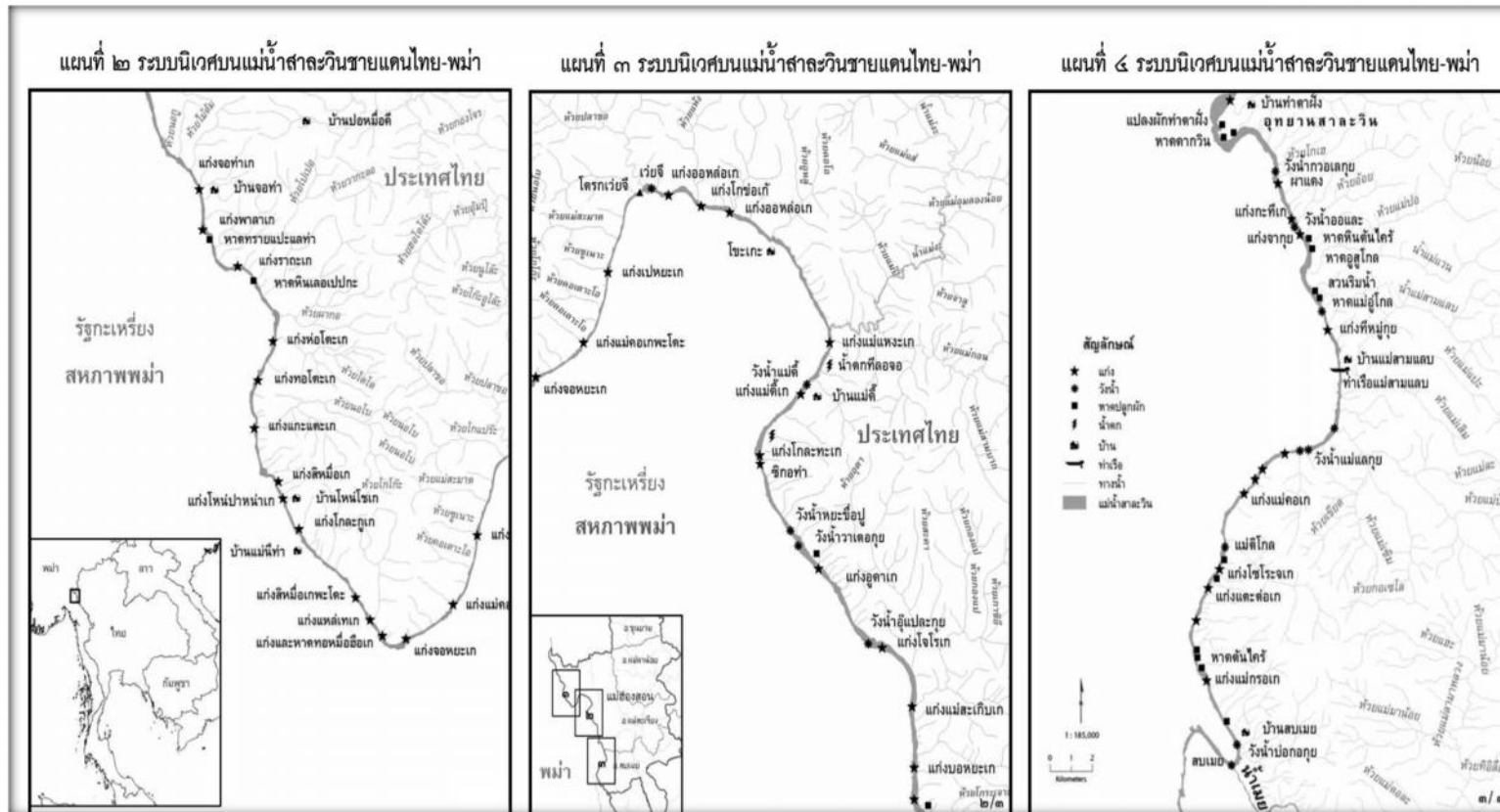
Figure 6.1. Villager Research Maps. These maps from SEARIN (2005) are titled "Ecological systems of the Salween River, Thai-Burma border" maps 2, 3, and 4. The legend on the map to the right includes the following: rapids (star), whirlpools (asterisks), riverbank gardens (square), waterfalls (zigzag), houses (house), piers (boat), waterways (lighter line), and Salween River (thicker gray line).

This raises several questions, but for the purpose of this discussion the image serves to reinforce a national boundary that many have argued is rather arbitrary. [7] It certainly highlights the river-border's significance in the everyday life experiences documented in Villager Research. However, it also shows the 'borderlanders', the declared authors of these Villager Research maps, taking a bordering role other than resistance or circumnavigation. Throughout this research project, they were the ones drawing and emphasizing the border's hard line.

Through their own histories and map making, residents are positioning themselves and important aspects of their lives as related to the border and to Thailand. At times, residents actually maintain the political border as 'gatekeepers' and take pride in this role, and at other times they perform the river-border as a significant part of their research and their understanding of the river. Highlighting the residents' role as agents in protecting, mapping, and narrating the history of the border in their collaborations with NGO staff not only shows how the border might be seen as something more than just imposed by outsiders, but also demonstrates that there is desire among these residents for their borderwork to be recognized. Local residents are portrayed in these narratives not as people separate from the border and from the state, but as agents doing the work or the operation of the political border.

Borderwork and environmental consultants

Environmental consultants have also been drawn into the remaking of the Thai-Burma border, through their paid work – in this instance the borderwork is literally contracted work, even if the contractors' responsibilities in regards to the border are rarely formally registered.

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[7] This also points to how a history of violence and conflict has potentially unmade the space of Karen State to many of the Karen or Thai-Karen. However, conflict, human rights, and violence are explicitly *not* part of Villager Research, as was explained to me by researchers and NGO research assistants alike: there was an intentional silence on this issue because of the way that any talk of human rights tends to overshadow 'environmental' issues.

Below, a selection of examples illustrate the material implications of the borderwork done by environmental consultants from the Environmental Research Institute at Chulalongkorn University in Bangkok, hired to conduct the environmental impact assessment (EIA) of the Hatgyi project (ERI 2008). Their work through the EIA and subsequent presentations to remake the border as something more 'fixed' also has governance implications, and speaks to their motivations in engaging in borderwork.

The scope of the Hatgyi EIA was very broad and included study of social, environmental, and health impacts. As noted above, the Hatgyi project as proposed would be constructed on the mainstream of the Salween River, near to the Thai-Burma border and the Thai provinces of Tak and Mae Hong Son. The specifics are complicated: the physical dam barrage would be located downstream of the portion of the river that serves as the border, with both sides of the dam located in Karen State, Burma (see Figure 1.1 Study site). Public representations of the EIA depict the dam's expected flood impacts as contained to Burmese territory. The Hatgyi EIA summary booklet distributed to residents in Thailand shows that the reservoir will be contained to the Burmese side of the political border, indicating that the water level will be raised until just a few meters before the river becomes the political border. There are detailed reports that conflict with the EIA's interpretations of expected impacts to Thailand (i.e., NHRC-T 2009) but in sum: the impacts to the border and to Thailand represent a point of contention.

Within the EIA, the consultants have gone as far as to leave Thailand off the maps (ERI 2008: 5-6), scaling the maps to show only the Salween River inside Burma, and, for instance, *not* the river-border as was the focus of the Villager Research maps.[8] In tandem with staff from

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[8] As of the time of writing, the Hatgyi EIA (ERI 2008) has not been made available to the public. EGAT officials explained that the version I have reviewed, which is titled Final Report, is not necessarily the finished product.

EGAT,[9] the lead environmental consultant made clear statements in his presentation at the public information hearings that it was not even necessary to carry out an in-depth impact study on the Thai side of the border, as they had established that there would be no impacts to Thailand (public information hearing notes 9 Feb 2011; see also: Chapter 5). These moves to discount cross-border impacts of dams is not unique, as documented in other cases in the region, notably the Yali Falls dam (Hirsch and Wyatt 2004; Wyatt and Baird 2007).[10] Indeed, conditions in which the projected ecological impacts would stop at the political border are particularly fortunate for the Hatgyi project's future success. If the project was found to have any impacts that might affect the political border, then by Thai law it would require parliamentary debate and approval.

The consultant's concerns and reiteration that 'ecological impacts stop at the border' is part of a response that attempts to enact the political border in a particular way. Solidifying the political border not only as something *there,* but as a firm barrier to environmental consequences, the report delivered by the environmental consultants stands out as a powerful piece of borderwork. By not mapping the river-border and by insisting to attendees of the hearings that the dam would not have impacts on the Thai portion of the river system, the consultants offered a vision of the border as a physical barrier that even fish do not cross (see also: Sneddon 2007, Baird 2011, and Chapter 7). As much as these were public information hearings, a key audience for this vision of the dam and the border were the state officials who participated in the decision-

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[9] Although I do not discuss Electricity Generating Authority of Thailand (EGAT) directly within this chapter, I want to note that there are two entities associated with this project: EGAT (purchase electricity) and EGAT-international (invest in Burma), both of which are state-owned and thus, most would consider government officials. Staff of both EGATs were present at the hearings, and some of the individuals work for both EGAT and EGAT-i.

[10] This 720 MW project in Vietnam did not acknowledge the impacts to Cambodian residents on the downstream sections of the Sesan River prior to construction (no attempt to mitigate), and after construction in 1996, water was released from the dam without sufficient warning, causing massive damage across the border in Cambodia.

making processes within the Hatgyi Subcommittee and the local district officials who helped to organize the hearings (field notes Feb 2011). The role of the environmental consultant is not only to generate information about the proposed project's impacts, but to package it for this audience so that it is deemed to be truthful and trustworthy.

Environmental consultants work in a contractual relationship with their employer, in this case the project developer EGAT, and they need to position their work relative to the aims of their employer and to the expectations of the broader consultant market (see also: Fisher 2008, Goldman 2001). As professionals hired to deliver a report, their livelihoods are intimately related to the project and to the ideas about the border that it requires and embodies. Whether or not the Hatgyi consultants can meet the demands and unwritten expectations of their present contract with the Thai Electrical Authority will have implications not only for their immediate income but also for their future prospects to win contracts on other projects in the region.

Moreover, imagining the political border as a physical barrier has material implications for decision-making, and for the role of local residents in Thailand, particularly those residing along the Salween River-border who conducted the Villager Research project. The borderwork of environmental consultants may demonstrate that residents do not have a legitimate, impact-based claim to participate in formal decision-making processes. If the EIA maintains that the area in which they live will not be impacted, then their knowledge and their participation can be discounted from formal decision-making processes; even sympathetic decision-makers may find it difficult to keep their arguments on the table.

Hatgyi is not the first dam in the region where people outside of the dam reservoir area have been defined in the project EIA as not 'directly impacted' (see also: Baird 2009). In spite of

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this, "villagers" have been encouraged to participate in meetings and to 'have their say'.[11] Rather than informing concrete decisions about the dam, in my assessment the meetings were performed primarily to enroll residents in the process and to assure them that those in Thailand would not be impacted by the proposed development. Much of this relies on a co-production of the political border as something 'fixed and secure'.

Information for the public: where is the border?

The decision of the Thai government to conduct a series of public information hearings in early 2011 brought a new dimension to this research and offers another venue to think about performance and co-production of knowledge and authority. While stakeholder hearings to discuss development projects are an increasingly common part of participatory decision-making processes in the region, these hearings provided a unique space and process for multiple actors (borderland and non-borderland, officials and non-governmental organizations) to come together to discuss ecological knowledge, development, and the political border. The performances during the hearings are important for understanding how borderwork is carried out among multiple actors.

The meetings were held in northwest Thailand in February 2011, in border villages and administrative centers, and aimed to provide information to the public about the Hatgyi dam.[12] One hearing that took place away from the border, in the district capital, was particularly

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[11] The consultant team also included consultations with residents in Burma and Thailand on their own initiative and referenced Villager Research in the EIA.

[12] These hearings were organized by a Thai government subcommittee appointed by the Prime Minister's Office during the Abhisit government. The full title is: "Public information disclosure and hearing in the case of the Hatgyi dam on the Salween River, Burma."

significant both in terms of how borderwork was carried out at non-border locations, and in the way that other actors could be seen to carry out borderwork alongside border residents.

At one point, audience questions turned directly to the border. An older man with a red Karen bag over his shoulder asked the question that this article began with, "where is the border?" I heard the question as a kind of understated provocation. The undercurrent to his question was evidenced by the large discussion it sparked in the room: he did not trust that the people conducting the hearing were familiar with the everyday management of the border. This resonated with what I heard in informal interviews with local residents, who repeatedly expressed that even the Thai military (the *Thahan Prahn*, or Border Rangers, in particular) did not "know" the border and enforced limited control of it. As my research assistant suggested to me quietly, "They [Thai government] don't even know about or how to control the border now – how are they going to build and manage a big project like this?"

These sentiments resonate with scholarship that has shown that Thai state invests very little in 'protection' of the Thai-Burma border. This has been written about with regard to illegal logging, attacks on refugees, and military corruption (Ball 2004). In Desmond Ball's assessment, instead of protecting and maintaining the border, the Thai Border Rangers – charged with upholding Thai sovereignty at the border – "may well have colluded with the DKBA [Democratic Karen Buddhist Army, in Karen State, Burma] in some of the flagrant violations of Thai sovereignty" (2004:5; see also Poopat 1998).

In the public information hearing, a response to this question of "Where is the border?" was given by a member of the military in uniform, who was also a member of the government subcommittee. As noted earlier, he emphasized that this project was an opportunity to clearly

delineate the political border, finishing with a rather ambiguous concession about the Thai-Burma border, that "…at present, … only 500 kilometers are clear[ly delimited]; there are still 2,400 kilometers that have not yet been surveyed. This is just the beginning" (hearing transcript, 9 Feb 2011).

While the question and its response emphasized the limited enforcement that the Thai state undertakes at the border and the 'opportunity' for development to delimit the border, it also drew people into a heated discussion about how to better 'secure' the political border. Further concerns such as "taking our land", "not enough land and water for everyone", and "lack of resources to support more people in the province" were raised by those in attendance. These concerns reflect anxiety from residents, NGO activists, and government officials about the dam contributing to refugees crossing the border into Thailand because of the Hatgyi project; all emphasized a need or desire for the border's fixity.[13]

Moreover, referring to "people over there," "migrant workers," and "refugees," speaker after speaker at the public information hearing reaffirmed the border's existence because even as border crossers themselves, the hypothetical migrants that they were concerned with were represented *solely* through their relationship to that border, in effect reinforcing its fixity. Bearing in mind larger discussions of bordering is important in thinking through the multifaceted role of residents in borderwork and the motivations for bordering, and particularly how it might be advantageous to "get your borderwork in first" (Rumford 2008: 8).

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[13] There are problems with the assumption that dam construction will directly contribute to "illegal migrant workers" or "refugees" crossing into Thailand. The links are not so clear or simple (Latt 2009). What's more, relying on and mobilizing Thai anxiety about refugees and migrant workers from Burma is an act that obfuscates other concerns about residents' access to natural resources.

Central to this paper, the villagers, NGO activists, and government officials at the meeting continually articulated terms and ideas that express or affirm a certain integrity for the border, whether that integrity is seen to exist or as something to be desired. In part, these concerns are an expression of events that have occurred over the past two decades, in which villages along the Salween River-border have witnessed and been affected by the conflict between the Karen National Union and the DKBA, and where refugee camps have been placed on the agricultural land of farmers in this province (without compensation), providing impetus for and evidence confirming broadly held fears of "outsiders". Environmental and human rights activists attending these hearings have picked up on these points because they have seen that this is an issue that has traction with governments and with the public (both Thai and international), that a project might *not* receive support if it may contribute to movements of migrant workers and refugees.[14] Moreover, these concerns are also of interest because they play on the history of conflict between Thailand and Burma – a spectre which still occupies minds today.

In the case of the public information hearings, and in my research experience more generally, a tension existed where multiple actors made claims to and about the border. The main point I argue here is that it is *through* the connections – in the overlap in voicing concerns about impacts or 'migrants and refugees' for instance, or more broadly through general calls for 'securing the border' – that the border is actually remade or "co-produced". In fact, the border might be seen to be made *more tangible* through this exchange of concerns regarding the border's integrity than in originally conjured ideas of the border as "not officially delimited". More than simply documenting the border, these maps, performances, articulations, and

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[14] I want to note that refugee camps are sites of relevant borderwork, but I do not address the issue in this dissertation.

presentations show how consultants, government officials and residents are involved in the 'work' of the political border.

Discussion: Implications of & Motivations for Borderwork

The work that I have witnessed at the Salween border highlights the role of residents, consultants, and other actors in bordering and reveals the border as site of personal investment, characteristics that require incorporation into our scholarship on borders in Southeast Asia. This approach complicates the "imposed" notion of borders, to emphasize how the work of individuals matters to the maintenance of the institution of the political border.

Through presenting these ethnographic fragments I also intend to raise questions about the implications of and motivations that drive individuals to continually enact or invest in the political border. I caution against the easy assertion that this approach or others that aim to understand "borders from the bottom up" necessarily result in or demonstrate evidence of more dynamic, or even more democratic political borders (Doevenspeck 2011: 140; Rumford 2008: 8; and also Newman 2006b). Indeed, a variety of motivations may encourage the enactment of the political border in its portrayal by villagers in Thailand. In some cases, local residents may simply be utilizing the representations of an existing map as a foundation for their Villager Research project. In other contexts, residents may be motivated to bolster their individual and communal claims to land, access to or control over resources by positioning themselves and their livelihoods on the "right" side of the border through performances of "Thai" histories. This is particularly acute in the face of possible relocation if the dam is built and impacts do occur in Thailand.

However, I would also argue that it is more complex; the statements and activities of village headmen and other community members in operating and policing their community's

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exposure to the border appear to go beyond simply 'saying the right things.' They point to incentives for marginalized communities to invest in reinforcing the border that often go unrecognized by scholars and activists. For instance, there could be benefits not only for land titles and access to resources, but also for claims to citizenship in Thailand and access to state infrastructures (such as education or electricity). The village committee I mentioned also represents an opportunity to remake the border area and the village in tune with the needs or practices of local residents.

As noted, environmental consultants also make choices in positioning their work relative to the goals and contractual obligations to their employer (see also: Fisher 2008, Goldman 2001). The consultants' livelihoods, not only the immediate income from this project but also for their future work in the region, are also intimately related to the project and to the ideas about the border that it requires and embodies. And yet, in this case the work of environmental consultants and their investment in public information hearings *after* their report was already produced makes this about more than simply 'saying the right things.' Environmental consultants also raised issues of border security which resonates with residents' concerns and motivations for a more 'secure' political border.

In some ways, the borderwork of residents, environmental consultants, and the government subcommittee coincided in terms of how the border was imagined. Notions of fixity and of the border as a site for control and as a barrier – keeping fish, ecological impacts, or migrants out of Thailand, or at least secured on the other side of the border – were reiterated in interviews, hearings, and maps. Considering that the border is referenced as not officially delimited, the political border is in some ways presented as more fixed and potentially more exclusionary through this process than was previously understood by those who participated in the

environmental governance process. For instance, at the conclusion of the public information

hearing, a further agenda for study of the river-border was made, with the various stakeholders

involved recognizing that 'securing' the border was an important part of the project.

Security matters because it is one clear motivation for bordering. There are other

motivations as noted above, but I was surprised by how seamlessly the different performances of

border security coalesced. This was evident in the public information hearing in particular, where

multiple actors – who might be assumed to have contrary views about both the 'fixity' of the

political border and the links that tie it to development – actually saw their concerns overlap. The

discussions and documentations of the border through these meetings transformed the way that

residents and others articulated their connection to or investments in the political border. This

was documented through the hearing where concerns about security and the border were also

elevated through this process. This performance highlighted the significance of the investments

that residents and environmental consultants were making in the border.

The level of engagement by environmental consultants in reworking the political border

was also initially surprising to me. Rather than a group of dis-interested academics, the lead

consultant and his team seemed to be eagerly engaged in the ways that the political border was

and would be enacted. Casting these performances of the border together, they more clearly

highlight the border as a process that needs to be enacted, a node of struggle to be invested in.

In conclusion, the ethnographic work presented here highlights how border residents can

engage as actors in bordering and at the same time, have their actions be influenced by the

borderwork of others such as environmental consultants. This, I argue, is the strength of

examining borders through the lens of borderwork: it becomes clear how a variety of actors are

involved in its co-production of the border through the interplay between knowing and performing the border at multiple sites and scales. Moreover, the argument put forward here is not simply that residents are enrolled in operating the state's borders but that they along with environmental consultants and government officials are engaged in enacting and re-performing the political border. The emphasis here on the actions and performances of multiple actors in bordering in turn de-emphasizes the border as a state-centric institution that crosses, rather than engages, individuals and institutions. Taken together, the conceptual approach and ethnographic data demonstrate that borders are accomplishments which necessitate work at multiple sites and scales.

CHAPTER 7 SCALES OF ASSESSMENT

The production of scale in environmental impact assessment and governance of the

Salween River

Introduction

Scale was revealed as a site of contestation in the 2011 Hatgyi public information hearings, particularly with regard to who belongs to the Thai nation and also who and what is included in maps projecting the spatial impacts of the dam. Scale is also a contested topic in Human Geography, as evidenced in debates (Smith 1992, Marston 2000, Brenner 2001, Marston and Smith 2001) that have contributed to the discipline's more critical conceptualization of scale.

In this chapter, I argue that understanding how scale is made and mobilised through environmental governance is essential for understanding how environmental governance works and for whom, particularly in the case of the environmental impact assessment (EIA). Building on scholarship about the politics of scale involving dams and water governance in Southeast Asia, and my experiences confronting these questions in research and activism in the region, I consider how scale is remade and is at stake in the EIA process.

To do so, I approach scale-making constructively as a process, in contrast to treatments of scale as an existing, ontological category, in which scales are seen as nicely stacked, hierarchal containers for organizing space and formal authority. Geographers and ecologists have critiqued the ways that scale is misunderstood to nicely fit within one other, such as how the local scale is assumed to fit within "larger" scales of the nation or region. In geography, there is also critique of how maps, for instance, provide evidence of neat and tidy spatial organization, when the underlying social, ecological, and political processes are not fixed, but dynamic and multifaceted.

In line with these critiques and building on conceptual frameworks for understanding scale in human geography (Smith 1992, Marston 2000, Brenner 2001, Marston and Smith 2001), I consider the construction of scale as a process, and I find that this is a process that is much more complicated and dynamic than a simple choice of presentation scale for the EIA's maps and text. In this article, I explore the ways that scale-making is accomplished, not just by the EIA authors but in the practices and published texts of a variety of actors participating in the EIA processes of the proposed Hatgyi dam.

In taking this approach to scale and to better understand the "untidiness" of scale-making in the EIA process, I diverge from the notion that the EIA is simply a tool for better governance, where "local" impacts and "national" benefits are assessed based on scales of analysis that present themselves as "matters of fact" for governments, developers and consultants. Instead, I consider the ways in which the EIA as ecological knowledge delimits and then mobilises particular scales – in this case, the local and national scale – through governance processes.

I mean for this examination to contribute to expanding political ecology's relatively limited discussion of the construction of scale, and to foster critical academic discussion of EIAs as a significant ecological knowledge system that is worthy of our attention. To present my arguments, this chapter proceeds as follows: first, I describe more clearly the conceptual approach I have taken to understand scale-making. Second, I provide a brief overview of EIAs, followed by details of my research site and methods. Then, I present evidence and analysis of scale-making in different parts of the EIA process, including the EIA text and the presentations that occurred at public information hearings held in towns and villages in Thailand, close to the dam site. To conclude, I synthesize the multiple (and sometimes "messy") knowledges and voices presented through the EIA process to think about the ways

that scale is constructed, and about the implications for who and what is included (and excluded) at "local" and "national" scales.

Scale and Water Governance: Conceptual Approaches from Human Geography and Political Ecology

Defining scale concerns defining or imagining who or what is included in study or analysis. It is focused on defining boundaries, categories, or hierarchies that include and exclude, as occurs for instance in the definition of a spatial size and extent of an environmental impact assessment. Precisely defining what scale "is", however, has garnered much debate in ecology (Sayre 2005, 2008) and human geography (Smith 1992, Marston 2000, Brenner 2001, Marston and Smith 2001). My approach to understanding scale-making considers how scale is produced through social and ecological processes and activities. To approach scale as produced or "constructed" (Smith 1992) means that scales do not exist as "stages" upon which social and ecological processes play out, connect to or cross over; neither are they categories through which analysis is developed. Instead, scales are the contingent, contested, and incomplete spatial and temporal outcomes of those processes and activities, and they are both influenced by and affect the way that socio-ecological processes unfold. This focus on scale as made through process, in turn, highlights the roles of multiple actors and the processes of transforming and creating scale that go unnoticed when scale is positioned as a basic "choice" that is made.

In his examination of the politics of scale in environmental assessments, Lebel argues that multiple actors, including those conducting EIAs, "should always be challenged to justify their scale positions and the scale choices made in assessments" (2006: 52). I take Lebel's comment alongside debates on the politics of scale in political ecology (Swyngedouw 1997, 1999, 2007, Sneddon 2002, 2003, Sneddon and Fox 2006, Brown and Purcell 2005, Molle 2007, 2009, Budds and Hinojosa 2012, Norman and Bakker 2009, Norman, Bakker, and

Cook 2012), debates that engage conceptual approaches to scale as process a foundation for my approach to thinking about scale and the EIA.[1] Work that considers scale and the EIAs (for instance, João 2002), instead of a process, positions scale as a "choice" to be made and, as such, suggests remedies for improvement of EIA process, such as multi-scale analysis. This presentation of scale understands scale as an existing, analytical frame suggesting that scale is created outside of the EIA study and process.

My argument that scale is actually constructed through the processes of environmental governance is seen in the EIA processes of Hatgyi dam. Through this case, I highlight how the national and the local as spatial or geographical scales are not chosen, but are transformed and remade (in that they maintain or exclude different characteristics) within the EIA process.[2] I also consider how through the EIA process these scales are recirculated to shape or confirm broader political questions.

In this approach, I take into consideration Glassman's (2001; see also Swyngedouw1997: 155) analysis of how activists in Southeast Asia have applied pressure to the nation-state through up-scaling efforts from the local scale – a strategy known as "jumping scale" – in order to gain attention and redress for their concerns. I take scale-jumping as a relevant frame for understanding how scale is mobilised. However, I consider scale to be made and remade through process and this means that there is not simply a national scale to jump to or to be "chosen" as an existing frame or platform for analysis or mobilisation. Instead, scale must be actively defined, delimited, and populated with goals and

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[1] Due to limitations of space, I cannot review the vast literature on politics of scale in its entirety, but please see overviews on the social construction of scale in geography and political ecology: Neumann 2009, Moore 2008.
[2] There is a rich literature on regional scale-making, both in development (i.e., Hirsch 2001, etc) and the construction of regions or area studies in academic scholarship (i.e., van Schendel 2001, Emmerson 1984), but I do not discuss regions here because the process was not emphasised through or within the EIA processes of this research. This exclusion is likely linked to the mandate taken up by the EIA as national legislation which tended to delimit concerns to the nation.

concerns that bear upon, in this case, the considerations of the EIA, or that may expand its field of vision.

In particular, I consider the implications of scale in and for decision-making. The production of scale is implicated in how residents are defined as part of or disconnected from decision-making processes, and more generally, in how environmental problems are framed through ecological knowledge (Forsyth 2003). Here, I draw on work in political ecology which emphasises local actors in their connections to decision-making, as well as the unevenness and power relationships evident in water governance processes.

While political ecology has been critiqued for its limited engagement with scale (Budds and Hinojosa 2012, Neumann 2009, Brown and Purcell 2005), several key contributions to thinking about the politics of scale have emerged in scholarship on dam development and water resources in Southeast Asia (Hirsch and Wyatt 2004; Sneddon 2002, 2003; Sneddon and Fox 2006; Lebel et al 2005; Lebel 2006; Cash et al 2006; Molle 2007, 2009; Bakker 1999). This work has considered the manner in which assumed 'natural' scales are used as part of decision-making processes. For instance, many identify the river basin as a scale of analysis, planning and strategy that is employed, wilfully or incidentally, to silence or discount some voices or positions while privileging others (Sneddon 2002, 2003; Sneddon and Fox 2006, 2011; Molle 2007, 2009). The scale of the river basin, more than an administrative artefact, is an active scale of analysis used by different actors to make claims over river and land resources. In a similar spirit, examination of the Hatgyi EIA process adds to this work by revealing that other scales – the local, the national – are similarly deployed and redefined to make claims and shape the outcomes of knowledge-making and resource management.

In addition to work on decision-making and scale, I also build on work that has pointed to how scale is strategically made or performed in the processes of making scientific

knowledge (Harris and Alatout 2010, Sneddon and Fox 2011). Although not specifically focused on EIAs, this work similarly illustrates how scale is an important part of scientific knowledge production but the technical presentation hides or obfuscates these dimensions or political implications of such work. Bringing these conceptual approaches to bear on the Hatgyi EIA case builds on and adds to the burgeoning conceptualization of scale in political ecology (Neumann 2009, Brown and Purcell 2005).

The Environmental Impact Assessment

> Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority. Principle 17 of the Rio Declaration on Environment and Development agreed at the 1992 United Nations Conference and Environment and Development (Donnelly et al 1998: 7)

The EIA is a kind of ecological knowledge that at its core aims to represent the environment to the state through formalised procedures as part of "good" environmental governance. The EIA plays a privileged role in formalised decision-making, and despite calls and efforts to increase public participation in its proceedings remains an expert-led document and process both in Thailand and around the world. This dilemma was evident in my research about the decision-making processes of the Hatgyi dam proposed on the Salween River. As I detail below, alternative knowledges were discounted throughout the EIA process. This discounting frequently took the form of a dynamic and flexible approach to making and remaking scales, in which alternative information was scaled out of the questions being considered by the proceedings. By paying particular attention to the EIA, I draw attention to how EIAs and not local residents became the 'voice' for assessing environmental impacts, and the questions this poses for what environmental governance accomplishes. In doing so, I mean to highlight the privileged role EIAs play in environmental governance, and the ways that the EIA is critical to remaking scale not only within its own process, but in broader political debates about environment, authority and development.

While political ecology has been critiqued for its limited focus on scale, discussion of EIAs within the field has been even more limited.[3] This gap is surprising considering that EIAs have been mandated through national legislation in over 100 countries worldwide (Donnelly et al 1998) and now represent a dominant template through which formal decision-making about the environment occurs.[4]

In Thailand, the EIA is *the* study of the environment that is directly incorporated into the state's formal decision-making processes by national law. It is less clear how the EIA is used in Burma, as this was one of the first EIAs conducted in Burma (BEWG 2011) and there has not yet been an EIA policy enacted.[5] In many jurisdictions, the EIA also involves a public participation process, taking the form of public hearings, discussion forums or, at minimum, information sessions. In my experience in North America and Asia, the EIA frequently comes to define the development debate, not only framing discussions in stakeholder forums and parliaments, but also having a substantial effect on how and towards what ends citizen mobilisation occurs. This underlines the significance of the EIA within environmental decision-making and in environmental conservation more generally.

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[3] Beyond what I reference here, there is very limited critical discussion of EIAs as related to scale, and none that I could find to reference from the political ecology literature. I located only one academic article using web of science, geobase, and google scholar. This article, titled, "How scale affects environmental impact assessment", was published in the *Environmental Impact Assessment Review*. This article is illustrative because it presents scale conventionally as a "choice" and the author points to two meanings of scale, spatial extent and geographical detail (João 2002:290). The author does importantly point out that these choices have outcomes, and they promote assessment through "multiscalar" analysis. However, this presentation of scale is instructive is that it suggests that scales exist on their own waiting to be chosen; they are created outside of the EIA study and process. Who "chooses" the spatial or geographical scales that the article identifies is not discussed. Neither is it acknowledged that the EIA process might also influence what scales of analysis are chosen or how they come to be understood. I raise these points to better position my own arguments regarding how scale is actually *produced* and not chosen through the EIA process.

[4] In response to some of the critiques of EIAs, other types of formalised assessments have emerged; this includes the social impact assessment (SIA), health impact assessment (HIA) and the strategic environmental assessment (SEA). In some cases, these assessments are part of the broader EIA process and in other cases they are have their own separate (but not necessarily disconnected) processes. In the Hatgyi EIA, the social impacts (and mitigations) are included as part of the EIA.

[5] While there has not yet been EIA policy implemented, there is a draft EIA law (The Government of the Union of Myanmar 2012). Discussions with activists and developers revealed that the Hatgyi EIA process was being considered as a model for future policy (see also: Salween Watch 2010).

Yet, up to the present, many academic critiques of EIAs have centred on evaluations of their accuracy or on comparative studies of the laws and practices that have been implemented in various jurisdictions.[6] Journals such as *Environmental Impact Assessment Review,* the *Journal of Environmental Assessment,* and *Impact Assessment and Project Appraisal* have represented the main fora for such studies.[7] The bulk of these works focus on how to make the EIA more "effective," and they share the notion that the problems encountered with the EIA procedure can be remedied by more accurate study, including multi-scale analysis (João 2002: 306; see also: Wilbanks 2006: 33).

However, a series of more recent articles in the aforementioned journals argued that while the EIA is portrayed as "objective," it is inherently a "political" tool (Richardson 2005, Cashmore et al 2008, 2010, O'Faircheallaigh 2009, Elling 2009). There have also been calls to understand "how decision-making actually works" (Bond and Pope 2012: 2) in recognition that the notion that better information leads to better decisions is a poor representation of links between the EIA and decision outcomes. I position this study of the EIA as a contribution to the identified need for more informed study and understanding about the links between decision-making and the assessment, but with particular regard to the ways that scale is constructed and mobilised by multiple parties in ways that fit their desired project outcomes.

Indeed, one of the issues raised throughout my research was that so many questions about the EIA remain open for discussion. Some activists and scholars conclude that the EIA process is merely a formality, without any 'real' authority to influence decision-making (i.e., Nadeem and Hameed 2008; KEAG 2007; International Rivers 2007; Nogrady 2013; Yilmaz

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[6] This comparative work has particularly been the case with EIAs in "Asia", for instance see the following studies: Thailand, Indonesia and Malaysia (Boyle 1998) or Malaysia, South Africa, Thailand and Denmark (Staerdahl et al. 2004).
[7] In addition, the following journals also publish regularly on environmental assessments: *Policy and Management*, *Environmental & Planning Law Journal*, and the *National Environmental Law Review.*

2013). Others, while admitting to its problems, see the EIA process as an opportunity for engagement and advocacy (Richardson et al 1993), including the productive potential to disrupt. The spirit of this disagreement, and the questions that it poses about EIA outcomes, inspires the analysis presented here.

Brief Note on Context

In addition to the Hatgyi hydroelectric dam, projects such as the Weigyi and Dagwin dams have been proposed on or in close proximity to the stretch of the river that comprises the border between Thailand and Burma. The Hatgyi dam is the first of these proposed border projects to reach the stage of an EIA. The Electricity Generating Authority of Thailand (EGAT) hired a group of environmental consultants from Thailand to conduct the EIA.

As noted earlier and represented in Figure 1.1, the barrage would be located not in Thailand, but just over the border in Karen State, Burma. Questions about past and future human displacement represent a site of contestation within the decision-making processes on Hatgyi. In addition to planned relocation of settlements in Burma directly adjacent to the dam site, if built the project is expected by Salween residents, NGOs, and Thailand's National Human Rights Commission to displace[8] villages in Thailand that are located along the river, a short distance upstream from the dam site. In addition, the histories and age of these settlements have become a new subject of analysis as the project's original EIA has been reconsidered and expanded. This is one of the reasons the EIA's definition of "local" scale has become so important to its process and conclusions.

The analysis and discussion in this chapter are particularly informed by participant observation at a series of public information hearings about Hatgyi, organised by a Thai

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[8] I use the term 'displaced' in a broad sense that would include both direct and indirect impacts of the dam.

government-appointed subcommittee.[9] The hearings were intended to distribute and discuss information about the project. The EIA was the principal reference and touchstone for this public information and engagement effort. I also reviewed documents emerging from the public information meetings (Hatgyi Subcommittee Dec 2010) and several distinct projects that aimed to document ways of knowing the environment in addition to the EIA study (ERI 2008). These included the project's feasibility study, and the NGO-published Salween Study (Chantavong and Longcharoen 2007).[10]

The next sections of this chapter present significant portions of the EIA process in order to demonstrate my arguments about how the local and national scale have been remade. I consider several different parts of the same process – including the Hatgyi EIA document, the Hatgyi public information hearing, the Salween Study, and a revised Terms of Reference for the Hatgyi EIA.

Examining the EIA and the (contested) production of scale

The spatial scale of the impacts of the proposed Hatgyi dam has been a subject of significant debate. The National Human Rights Commission of Thailand study on the Hatgyi project (2009) reported that cross-border impacts are expected. As noted in Chapter 6, experiences with transboundary dam projects elsewhere in Southeast Asia have also indicated that cross-border impacts should be expected (Hirsch and Wyatt 2004, Daming et al 2006, and Sneddon and Fox 2006; Wyatt and Baird 2007). In contrast to these assessments, the Hatgyi EIA document (ERI 2008) and the accompanying summary distributed to residents along the

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[9] The Hatgyi subcommittee was formed on 8 June 2009, and members are appointed to provide oversight for the Hatgyi process. It includes ministry, industry, and civil society representatives. The full name is the "Sub-committee to Study Information and Present Comments on the Various Impacts Including Human Rights Abuses in the case of Electricity Generating Authority of Thailand's proposed Hatgyi Dam Project on the Salween River in the Republic of the Union of Myanmar [Burma]."

[10] From 2006 to 2008 I worked with TERRA, an organisation under Foundation for Ecological Recovery (FER), which was responsible for the Salween Study project. While I do not present data from my work there, the experience informed my analysis.

Salween (Hatgyi Subcommittee December 2010) specify that Thai authorities will do all that they can to contain the impacts from this project within Burma.

Two components of the EIA provide particularly clear illustrations of the way that a "local scale" of impacts has been defined. A map titled "Locations of Villages Surveyed" was included in the chapter presenting mitigation measures for the proposed dam's impacts on fisheries (ERI 2008). This map shows the Salween River in Burma, downstream of the portion of the Salween River that comprises the Thai-Burma border. No villages, provinces or other administrative divisions of Thailand are shown or indicated on this map. A later chapter, titled "Public Consultation," reports on "local consultations" held with "local people" in 2006-2007. This represents another part of the EIA process that was mounted exclusively within Burma. By mapping and describing impacts and consultations only within Burma, these sections of the document accomplish the task of overriding hydrological common sense and the human ecologies of the river in order to localise dam impacts within Burma.

It is important that this local scale is not just any "local"; it makes use of the political border and it excludes Thailand, which represents both the commissioner (through the state electrical authority EGAT) of the report as well as its primary audience. In fact, within the EIA and the accompanying summary document, it appears that excluding Thailand was overtly intentional. The Hatgyi Subcommittee summary of EIA explains that, "Looking closely at the impacts to the environment on the Thai side, this side will have additional study in order to have the villagers (*chao baan*) receive the least impact" (Dec 2010: 10-11). In the EIA's "mitigation" section of Chapter 3, the consultants write that "It is impossible to let the Moei River, within Thai territory flooded [sic] most of the time both dry and rainy season because it is the National Security System to protect the territory. Water level at natural or normal level is very important and must be controlled at all time." (P3-75 Chapter 3: Physical

Resources [Written in English]). The water level at the border, in particular at the confluence of the Moei and Salween Rivers, discussed in the Summary Booklet and the EIA is 48 meters mean sea level (MSL). What EGAT has suggested is that if the river does not rise above 48 MSL, it will not flood Sob Moei village or Thailand. They make this claim based on: the notion that 48 MSL is below Sob Moei village. However, there are at least two important flaws in this logic. First, while, undammed, the river fluctuates as high as 70 MSL in the high season, 48 MSL is still higher than the river's level in the low season (40 MSL is listed as "dead" water level) and this would flood the riverbank gardens of at least one village on the Thai bank. Second, there have not been any studies done or presented on how this will affect the flow of the Moei River.

In addition to what appears an attempt to bound the zone of impact to keep it outside of Thailand, the strategies pursued by the EIA served to define and create a "local" as a spatially bounded scale that can then be reinforced through the planning and construction of the dam. Prior to the EIA, the political border had not been seen as a hydrological and ecological division that would, for instance, keep fish, people, or the impacts of development to one side. In other words, this is an instance of scale-making whereby the contours of the local are inscribed by the EIA. More than simply "choosing" the local scale, the EIA represents part of a re-articulation of people and ecologies to produce a particularly meaningful and useful spatially-defined local scale.

Even after this vision of the project's scale appeared in the EIA, its real power arose from its uptake and reconsideration by Hatgyi's developers and by the Thai government subcommittee on Hatgyi. This is evidenced in the public information hearing that I detail below. The redefinition of the "local" scale of impacts implied that concerns of residents living along the Salween in Thailand would be discounted because they are not located within the EIA's new "local" scale and are thus owed less of a stake in decision-making.

While controversy over this bounding of a local scale of impacts drove interest and participation in the public hearings conducted by the Thai government's Hatgyi subcommittee, it also helped to turn the debate towards technological mitigation measures, rather than the advisability of the project itself. A concretely delimited local zone of impacts is a crucial step in disarming larger questions about the 'indirect' impacts of dam development. These larger questions, for instance the need for dam-displaced people to re-skill in order to carry out different livelihood activities, or the way that such displacements facilitate privatisation of local resources (Vandergeest et al 2006), have been disregarded within the post-EIA discussion.

Fish scales: fish ladders and the mitigation of impacts

The Hatgyi EIA makes claims that impacts are confined to a local scale that does not include Thailand's portion of the Salween River, upstream of the dam site. Since Salween fish cross borders and represent a regionally significant resource (Wong et al 2007), the EIA's study and recommended mitigation of fisheries impacts are crucial for the EIA's efforts to convincingly scale impacts to the local area of the project. In order to 'map' the local impacts to exclude Thailand, fisheries impacts must somehow be engineered to a single side of the border.

Chapter 5 of the Hatgyi EIA (2008) discusses fisheries livelihoods, and proposes to solve potential fisheries impacts through the use of a fish ladder or fish elevator. The fish ladder is a mitigation technology aimed at facilitating specific species of fish to swim or navigate across a dam and back down (upstream and downstream). This is necessary for migration, spawning, and to prevent species loss. There are also mechanised versions called fish elevators.

A fish ladder at Hatgyi probably will not work. While the fish ladder has been deemed by some to work successfully for salmon fisheries in the western US and Canada, in several cases in the Mekong region it has proven ineffective as a mitigation measure for the fisheries impacts of large dams (Bernacsek 2000; Thorncraft et al. 2006; Baran et al. 2007, 2001; Baird 2011; Roberts 2001). However, the fish ladder's importance to the process does not only rest on its foreseeable effectiveness. Instead, I argue that the key to rationalising the promotion of the fish ladder as a preferred mitigation measure is in the ways that this engineering device serves to scale and apportion impacts and benefits. By providing a vision and promise that fish will be able to continue to swim up- and downstream from the dam, and in this case across the border, the fish ladder facilitates the definition or containment of "the local" to one side of the border. Again, in this case it is not just "any" local scale that is made but one that excludes people and ecologies within Thailand. Even an ineffective fish ladder still manages to discursively contain and scale the dam's impacts on fisheries "locally" within Burma by supporting claims to mitigate fisheries impacts on other parts of the river.

In this way, the EIA study and process have effectively defined the local scale in relationship to particular people and ecologies, while discounting others. The way that scaling is accomplished through the EIA's fish ladder is particularly important in terms of what it would mean to Salween residents on the Thai side whose families or livelihoods would be displaced if, as expected, the fish ladder does not actually allow fish to move in sustainable numbers across the dam. This is particularly significant considering that these same residents could be excluded from decision-making, impact mitigation activities and political attention precisely because the EIA (with help of the fish ladder) claims that they will not be directly impacted. I return to this point about who is included and excluded when I discuss the project's new terms of reference.

Limiting discussion of the impacts of a large dam on a transboundary river to just a small area around the project site would appear to even the casual observer to be plainly counter-intuitive. This is particularly true when fish migrations occur along the river and its tributaries, including the nearby Moei River. That project impacts were scaled to exclude fish migrations that transit that portion of the river shared by Thailand was one example that has spurred ecologists and activists to push for assessments at different scales, such as the scale of the basin.[11] Indeed, information that would contradict these claims about the scale of "local" impacts and fish migrations had already been documented in the Salween Study that I discuss next. That knowledge-production effort produced and circulated an alternative construction of the scale of the Hatgyi project impacts, and was important in securing an extension of the EIA process to additional public consultation and consideration of impacts within Thailand. At the same time, the Salween Study also reveals the important role played by national narratives in grassroots efforts to redefine and challenge scale in development projects.

Alternative constructions of scale: the NGO-led Salween Study

The Salween Study (Chantavong and Longcharoen 2007, full title of book in English: *Salween: Source of life and livelihoods*) was an NGO-led collaboration between fishers and farmers at the Salween River (mostly in Thailand), and academics. Even as the Salween Study took place largely outside of the formal EIA process, information presented in the study on fish species, fishing gear, and fish migrations came to be referenced, if quite selectively, in the official EIA document. I present the Salween Study as part of the Hatgyi case study in order to highlight how the different spatial scales mobilised in an EIA process are contested and transformed through engagement by so-called "local" knowledge projects

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[11] The work of the organization Salween Watch to push for a strategic environmental assessment of the Salween basin is one example of a push for thinking about the impacts of proposed dam projects at the scale of the river basin (see: www.salweenwatch.org).

which have come to be increasingly adopted by communities and activists throughout Southeast Asia. The Salween Study also illustrates what's at stake in remaking scale: not only does scale determine who can decide the future of development projects, but also who is authorized to define and make claims about the local and the nation, particularly with regard to who and what are narratively included or excluded in each.

Many of the residents who would be impacted by the project in Thailand and Burma identify as members of the Karen ethnic group or as Thai-Karen, and many have taken part in a series of initiatives that have aimed to record, systematise, and textualise what they know about local ecologies and histories. These knowledge initiatives were different from the EIA in a number of ways, particularly in their participatory approaches to recording and determining the importance of information, but they were similarly concerned with the ecological aspects of the river and the impacts of the proposed dam developments.

The approach of the Salween Study was based on the premise that local residents are significant knowledge holders and are well-positioned researchers as a result of their lived relationships with local ecologies and histories. In order to best communicate this knowledge to decision-makers and to broader Thai or international audiences, proponents of this form of study have emphasized that it should be supplemented (but not led) by expert research. Academic experts, such as ornithologists, were brought to the village to record data on species and to interact and learn from and with local residents.

The village histories documented through the Salween Study illustrate how scale is re-created by independent parties in ways that both fit with and challenge the EIA. Each village history was elaborated with maps and photographs, and positioned the villages along Thailand's portion of the Salween River as being resident within the state's borders for generations. One village history includes an important photograph from February 1973 (FER 2007: 102), marking the day that His Majesty the King of Thailand came to the village and

participated in planting trees. The King's presence there at this time firmly establishes the village as part of Thailand, and situates the villagers as both the subjects and responsibility of the Thai crown. It also runs in contrast to claims that the Karen villages were recently established by people from Burma, which is the popular understanding of the Karen's presence in Thailand.

Figure 7.1: Royal Visit to Salween 1973, from Chantavong and Longcharoen (2007).

Figure 7.2: Village Archaeology Museum, Image taken by Vanessa Lamb.

The King's involvement in planting trees throughout the country has been understood to have helped produce the modern Thai nation-state, part of the process of bringing the 'state into the village' (see also Hirsch 1989). This connection of national authority to modern forest practices such as tree planting is not coincidental, but is part of a broader history in which the Thai state has been extremely active in natural resource management, particularly forestry (Vandergeest and Peluso 1995; see also Sowerwine 2004). This is a significant narrative for the Salween Study to put forward because it also runs up against discourses that place responsibility and blame on people who are ethnically not Thai (i.e., Karen or Hmong) for forest and natural resource destruction (Forsyth and Walker 2008, Walker 2003, Vandergeest 2003, Lohmann 1999). These village histories were accompanied by other NGO efforts (including participatory mapping of villages along the river) to mobilise ecological knowledge that would advance villager claims to resource access and belonging within the Thai nation.

In addition to the village histories documented by local residents, the Salween Study also included an archaeological study by Thai experts. This archaeological study argued that the Salween River area represents an important site for understanding Thai history, and was produced in collaboration with local residents who worked as researchers side by side with archaeologists. Together, they inventoried findings, including artefacts such as vases and tools, that date to the sixteenth to seventeenth century if not earlier. Local residents, with the support of interested archaeology students, also put together their own museum in the village to show and explain some of the artefacts and other findings. In the archaeological study, the authors argued that if the Hatgyi project proceeds, this heritage would be lost, and left open the circumstantial links between the current settlements and their historical precedents in the river area.

The archaeological evidence and arguments introduced in the *Salween Study* make claims of a spatial nature that are similar to those frequently employed to shape other facets of national debates within Thailand. In placing the area as an important site in Thai national history, the study makes the argument that its buried heritage, and thus its ecologies and residents, must remain unfettered if they are to serve as important resources to the legitimacy of the Thai nation-state. This argument is more than a political trope. Duplicated across a number of disciplines and areas of concern, it represents an intentional effort by villagers, experts, and activists to rescale the discursive space of the Hatgyi project's impacts to differently imagined scales. While even the EIA admits that Salween residents' livelihoods are linked to the river, the Salween Study places those residents and their livelihoods *in Thailand* and as important participants in Thai history. Similar to the EIA's constructions of scale, the Salween Study redefined what and who resides within the bounds of the local scale of impacts, but also reimagined the nation, clearly placing the Karen that reside at the Salween within the bounds of the Thai nation (see also Chapter 5).

Both the EIA and Salween Study remake spatial scales to reveal and arrive at significantly different messages and ramifications for the project's ecological impacts. Perhaps more interestingly, they also use these scales to apportion and describe both the local and the national interest in project decision-making. These alternative imaginings of the scale of the nation and the local are presented here to show that multiple actors, including residents and activists, participate in processes that remake scale. However, that the alternative study was largely discounted within subsequent documents and discussions reveals how the EIA is so successful in setting and sustaining durable scales to authorize and constrain analysis and decision-making. The influence of the EIA is revealed in detail in the public information hearings that I discuss next.

Public Information Hearings: Scaling processes at work

The Hatgyi public information hearing process[12] highlights how the EIA's official construction of the scale of impacts and benefits for the proposed project was mobilised and circulated outside of the printed document. The hearings also raised interesting questions about who or what was included in this EIA's definition of the nation.

Organised by the Thai government's Hatgyi subcommittee,[13] the public information hearings relied almost entirely on the information and portrayals of impacts contained within the EIA. Prior to the hearings, the EIA was summarised as a short booklet and distributed to residents in northwest Thailand. Stacks of these booklets were available at Thai border posts along the river. The series of three hearings were principally attended by local residents from villages along the Salween River, as well as by government officials, locally and centrally-based activists, public relations officials for the Prime Minister's Office, Thai soldiers, a team from EGAT, me and locally and centrally-based activists.

During the February 2011 hearing, a senior EGAT staffer presented a graphic – similar to an animated map – that indicated that inundation from the dam would stop at the border. The graphic showed the Salween River in Burma up to the political border with Thailand, similar to the EIA's aforementioned map of surveyed villages. The graphic first illustrated the current water levels without the dam in blue. Second, in green, it illustrated the water levels anticipated if Hatgyi would be built, through a visual representation of the EIA that claims that the inundation would stop at the border. This presentation relied on the same carefully limited "local" scale of impacts, as discussed earlier with regard to the EIA's own mapping and its proposed fish ladder. The EGAT representative explicitly reinforced the connection with the EIA. He explained that the team "knows" the water levels will not cause flooding or

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[12] The purpose of the public information hearings discussed here was to provide information about the project to the public and collect their concerns and questions in order to formulate next steps for the project. The organiser of these public information hearings, the Hatgyi Subcommittee, reports to the Thai Prime Minister's office.
[13] These hearings in Thailand come after the consultations in Burma with "local people" that are documented as part of the EIA.

inundation of Thai soil as a result of a scientific study conducted by the lead environmental consultant for the EIA. Based on his experience with the EIA study in Burma, the senior staffer repeated that the so-called stakeholders in attendance "should not worry about inundation [*nam tuem*] or the border" (hearing transcript February 2011).

During the hearings (also presented in Chapter 5), the dam's benefits were reciprocally defined as national goods for Thailand. One instance of this portrayal occurred when the lead consultant for the EIA was emphasising that despite this bounding of project impacts within Burma, it was still Thailand's responsibility to assert good environmental governance for the project. He explained that the project was for the "good of the nation", emphasising that its benefits would accrue to the *Thai* nation, mostly based on what would be done with the electricity produced by the project.

Once again, scale is not simply "chosen" in this instance, but is part of the same process in which scale is made to exclude particular peoples and ecologies. Explication of this process also highlights how the local and national scale, as constructed in the EIA, are mobilised *together* to produce effects. It is important for the success of the Hatgyi project that the impacts are localised to Burma and that the benefits accrue to the Thai nation. The absence of impacts on the Thai side of the border helps to facilitate a project that might otherwise face delays, postponement or cancellation, while the national goods that will accrue from it are used to justify EGAT's adventure within Burma as well as the agency's efforts to sell the project to communities within Thailand.

The discursive shift to "national benefits" also has implications for (and I would argue works to redefine) the spatial and jurisdictional scale of the nation. In addition to arguing in favour of the project moving forward, the presentations at the public information hearing revealed the positioning of Thai authority and expertise over the Salween River. This was evidenced as the consultant, a Thai academic, suggested that if Thailand were to pull out of

the project, the result would be "death exactly" for residents and fish. He explained that if China and Burma were left to build the dam without Thailand's investment, he was afraid that the water would flood Thai residents without proper study or notification, and without a fish ladder. Again, the EIA's engineered mitigation measures served to offer the promise that, with Thai national expertise, dam impacts to the Salween would be kept within Burma. National superiority backed up the EIA's optimistic definition of "local", while Burmese authority and agency was not acknowledged during these presentations (see also: Harris and Alatout 2010: 150).

Transforming scale: How does a 'potentially displaced resident' become an 'illegal' migrant worker?

In August 2011, a new proposal emerged from the deliberations of the Hatgyi subcommittee: a Terms of Reference (ToR) for additional EIA study. This proposal, while superficially a response to new evidence raised during the public information hearings and in the Salween Study, may serve instead to further silence some of the very stakeholders responsible for precipitating this extension of the EIA.

As presented, the new ToR suggested that the Thai government (through the Hatgyi subcommittee) would clarify through additional study the impacts to the river-border, and mandated a review of anticipated impacts to Thailand. This new mandate implies a potential to remake the local scale yet again – this time what is considered "local" may include Thai sections of the river-border. However, the physical expansion of the project's local scale is accompanied in this ToR by an intensification of mandates that may police and restrict the legitimacy of the local voices considered by the study.

The ToR's section on "human rights" includes mandates to prepare a study of "the context of arrival [how the local population came to this place] such as through war or as

illegal migrant workers"; "the study of the language [that local populations] use"; and "the study of public health, general health and diseases" (Hatgyi Subcommittee 2011). Those Salween residents who argued to the subcommittee that they will be impacted by the dam now find themselves framed as the objects of a study to determine if they are *really* Thai.

If this does not appear significant enough in questioning the legitimate position of local residents in Thailand, then consider that this new study is described as important to the EIA because "in the area there are many people from Burma that fled as refugees from war and/or who came here illegally" (Hatgyi Subcommittee 2011). This shift is significant since in previous iterations of the subcommittee's review process residents of the study area were consistently referred to as the "public" or villagers. People in the border region who had been treated within the Hatgyi process as legitimate stakeholders, fisher folk, or invited forum participants, are repositioned under the new ToR. The new mandate implies and seeks excuses to conclude that these residents do not legitimately belong within the nation-state, and consequently are owed less of a space for participation.

The reframing of border residents shows how the EIA process, in coordination with formalised decision-making, can effectively redefine the spatial scale of the local and the nation and make new claims about who is authorised to reside within them. Not only is scale mobilised to exclude certain people from the decision-making process, but a remaking of the scale of the nation-state as a whole is at stake here, and this is part of the same process described in the EIA maps, public information hearings, and Salween Study. In this new ToR, the act of excluding residents and activists as legitimate members of the nation-state effectively redraws the discursive and material boundaries of the nation to exclude their voices and knowledges. In addition, the Hatgyi subcommittee's new ToR underlines the importance to the project's approval of remaking the local scale in ways that may include

some Thai territory, but that would also call the status of the residents of that territory into doubt.

In advance of the conclusions of those additional studies, it is not clear whether the impacts will simply be (re)contained to a local scale within Burma through the reinscription of affected residents' nationality and legitimacy. However, even without the new EIA, the act of calling into question residents' belonging to and within the nation has implications. This new ToR ties Salween residents to a broader set of prevailing discourses in Thailand about migrant labour, war, and disease, and their popular association with non-Thais, particularly Burmese and ethnic minority groups. Latt (2009) has pointed out that discursively referring to refugees as illegal migrant workers essentially erases a history of violence and conflict. I would add that in this case it also serves to denormalise, pathologise, and erase a parallel history of economically active, informally recognised minority communities throughout the Salween border region. Residents of the border region may have been made the focus of further study through this ToR, but only through a lens that deauthorises their presence at the border and delegitimises their concerns.

Through this revised ToR, we can again see how pre-defined scales for analyses are not simply "chosen". Instead, this adjustment to the EIA process reveals that the remaking of scale remains crucial to shaping knowledge and decisions about the Hatgyi project.

Discussion and Conclusion

An important part of the argument presented here is that scale is produced, actively contested, and strategically mobilised through knowledge-making and decision-making processes within the EIA. This is a messy, incomplete process. Informed by a history and wealth of experience with dam development, and anticipating opposition from Thai residents and NGOs, the original EIA remade the "local" scale to the project developer's advantage, stopping project

impacts at the political border. This production of a local scale of impacts was facilitated by the recommendation of engineered mitigation measures, such as fish ladders, while it effectively ignored and attempted to disarm bigger questions about the indirect impacts of dam development.

Yet, even if spatially excluded from the EIA, residents of villages within Thailand have attempted to redefine the local scale to include their anticipated impacts from the dam. These residents bolstered their claims and access to natural resources and to the decision-making process through their participation in hearings and in the Salween Study project. They also made attempts to situate themselves inside the Thai nation-state through their own village histories, participation in the nation's forest management, and discoveries of archaeological artefacts.

However, in the recently issued new terms of reference (ToR) for the EIA, yet another re-scaling has been attempted to further marginalise these residents from the process. People potentially impacted by the dam were rewritten under this ToR as illegal migrant workers, associated with war and disease, and thus as people who lack legitimate claims to natural resources or to a hearing within Thailand's formalised decision-making processes. Implicitly, this scale-making also externalises impacts, limiting them to ecologies and to people either physically or canonically found to be outside of Thailand.

Whether these actions and counteractions were opportunistic or deliberate (Clarke-Sather 2012), they represent a succession of strategies to create and mobilise multiple scales – in this case, the 'local' and 'national' scales – through environmental governance. While there has been much written on the up scaling of decision-making by actors such as states and NGOs to the national or regional scale, and the downscaling to the 'community' level by NGOs or local actors, the EIA process provides illustration of the ways that ecological knowledge remake and redefine locality and nationality. This research shows how the EIA

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simultaneously rescales governance to both the local and national scales, and how outsiders to the EIA have sought to scale themselves back 'in'.

An additional point I wish to draw attention to here is how the EIA realizes national claims to knowledge and authority over a transboundary resource, an act that essentially trumps alternative scales. The so-called technical 'facts' – such as the hydrological models or the aforementioned fish ladder proposal that both construct the scale of local impacts in Burma – obscure the political dimensions through their presentation as 'objective' scientific expertise (Harris and Alatout 2011; Sneddon and Fox 2010; Mitchell 2002). These processes also naturalise the nation as the scale through which decision-making is carried out, even in this cross-border project. Despite its calls to the objectivity of science, the Hatgyi EIA's decision-making has ultimately been dominated by questions surrounding what or who "is Thai", a naturalization of the national scale that is all the more impactful when we consider that the Salween is a river shared with Burma and China.

This case also has implications for future investments in Burma not just by Thailand, but investment by many others companies and states, as well as potential for setting standards for Thai investment in neighbouring countries. This comes at a time when Thai investment in energy projects in neighbouring countries, and international investment in Burma more generally, are both increasing.

The arguments put forth here demonstrate not only the ongoing and multifaceted ways that scale is remade through the EIA process, but also how this scale-making is integral to the way that environmental governance unfolds. In this case, taking scale as "choice" would miss out on these (contested, messy) processes of remaking scale, and would overlook opportunities to consider how to remake scale differently. Taking scale as a choice also elides important questions. For instance, for (and by) whom is scale remade? What are the processes

through which this occurs? How is the nation remade, and with what exclusions? How are scales changed through successive iterations or stages in the EIA process and debate?

The fate of the Hatgyi project and the EIA are still being contested and debated. It remains to be seen in the case presented whether local residents will indeed be rewritten in the new EIA as illegal migrants and refugees, and if (or how) that will have material implications for their access to resources and to a hearing in decision-making processes. However, the driving question throughout my observation of the Hatgyi EIA process was how the EIA, and not local residents, became the 'voice' for assessing environmental impacts. Another way to think about this question is to consider how environmental groups and local residents at the Salween River – or elsewhere –continue to spend their time and effort engaging in these environmental decision-making processes, particularly if they will continue to be written out of the process. I present this analysis to underscore the importance of how scale shapes possibilities for more inclusive governance in EIA processes, and how productive engagement by multiple actors could be linked to the possibilities of re-scaling. This, in turn, invites further research regarding how different actors reimagine scale in ways that may in fact open up productive possibilities for "good" environmental governance.

SECTION 4 WHO KNOWS THE RIVER?
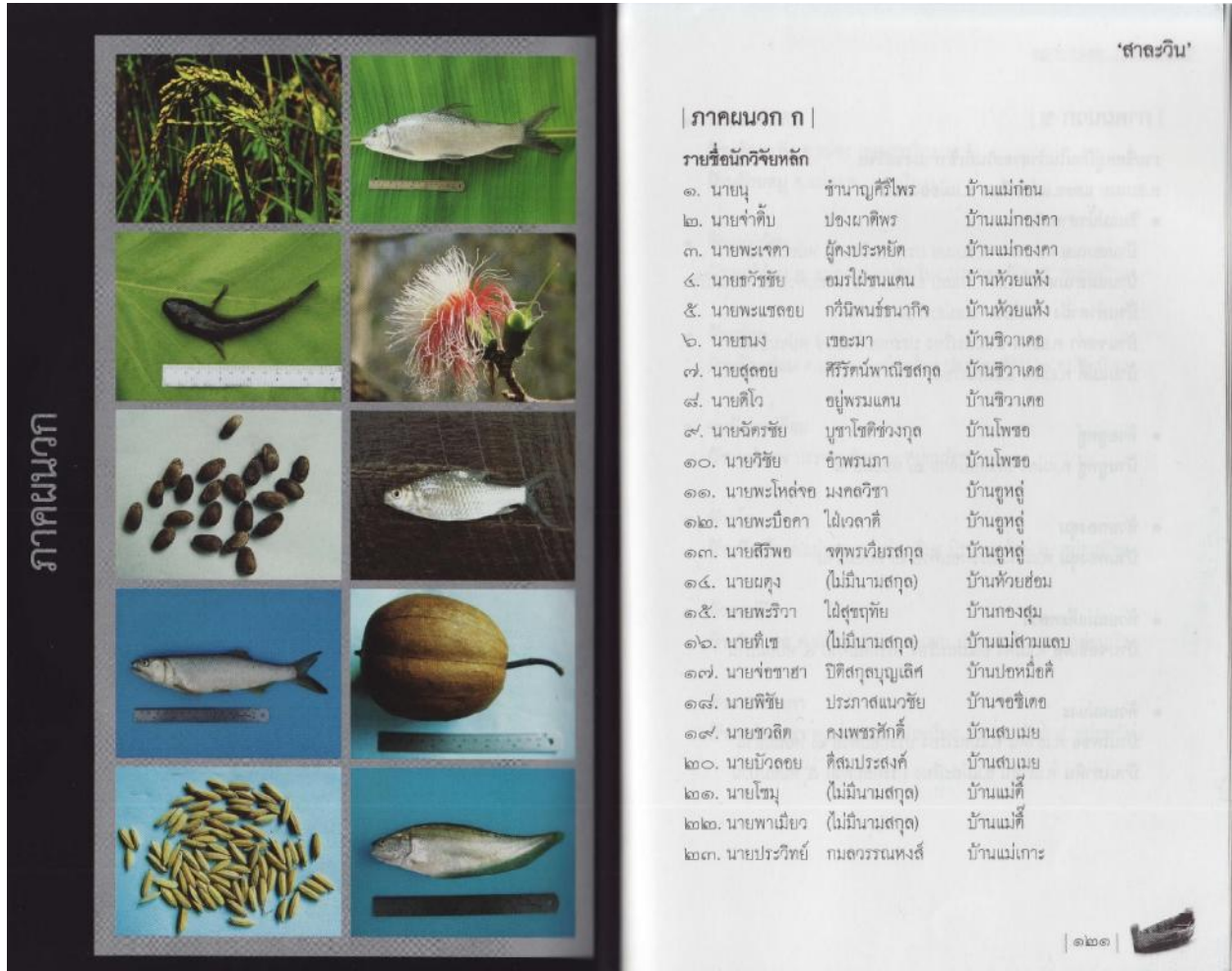
Figure 8.1: "List of Misters". The list of all male researchers from Salween Villager Research book on right side of image (SEARIN 2005: 121). Left side shows species identified.

CHAPTER 8 WHO KNOWS THE RIVER?

On knowledge, expertise and experience of riverine ecologies

Introduction

In Southeast Asia, rivers are vital to the lives and livelihoods of millions of people. An estimated six million people depend on the Salween River, which flows through China, Burma, and Thailand, as a source of livelihood and food. It is not surprising then that in the current context of impending hydroelectric development, livelihood activities—particularly fishing—have become a major preoccupation in international environmental campaigns, local research projects, and the media. As an entry point to thinking about river knowledges, expertise, and gender, fishing is a good 'place' to start. As I will demonstrate below, fishing activities at the Salween have been characterized as a predominantly male occupation. This is even apparent in local research projects, such as Villager Research, where images and other documentation of fishing livelihoods have represented fishing as a traditionally male-dominated activity. Yet, my own research observations show that the network of fish traders and sellers at the Salween is largely comprised of women; women also undertake fishing in small streams on a daily basis. Taking into account the differences in knowledge, documentation, and experience, I am interested in just *how* fishing has become represented as a male-dominated activity, and in the ways that ecological knowledge and identities are performed together or "co-produced".

In addition to fishing and gender, in this paper I consider the ways that gender and racialized ethnic identities[1] have been mobilized in the re-presentations of the processes of

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[1] I used the term "racialized ethnic identity" instead of "race" to refer to the situation in Thailand where ethnic identity categories are fixed, or as Vandergeest (2003: 21) argues, "Racialization often builds on ethnic differences, by stereotyping them and making them the basis of discriminatory practices such as the exclusion of stereotyped ethnic groups from citizenship rights." See also: discussion below (189-190).

research. Drawing on work in feminist political ecology, my overall argument is that the production and documentation of 'local' ecological knowledge shapes racialized ethnic and gender identities in ways that resonate with conservation narratives. This has resulted in the production of the story of the Salween village, a story that has dismissed, for instance, women's roles in trading and selling of fish. This is a story that matters; it has implications for who can "know" the river and for how development proceeds in the future. While I situate my own argument within a 'new' FPE framework (Elmhirst 2011a) and draw upon debates about knowledge and gendered resource access in development, I also draw on science studies in order to highlight the links between the production of knowledge and identities (Sundberg 2004, Haraway 1991). Finally, I want to emphasize that I aim for this analysis to be tentative, rather than declarative; as such, the main contributions of this chapter are to provoke questions that contribute to furthering an understanding of how knowledge and identities are made together.

Villager Research

I have introduced and discussed this project earlier in the dissertation, so here I describe only some key parts of the project in ways that relate to the objectives of this chapter. First, Villager Research is a methodology that aims to record and systematize knowledge about local ecologies—in most cases riverine ecologies—both for local use (for instance within schools) and to make it visible to development proponents and decision-makers. This methodology has been advanced as an alternative narrative about the environment, differing substantially from the treatment typically given by news media and science, and it has appeared as part of a broader, worldwide move to recognize local environmental knowledge (for instance, see WCED 1987, Leach and Fairhead 2002, Berkes 2009 and for critique Agrawal 1995, 2002, Lowe 2006: 73). Some have even compared Villager Research to citizen science (i.e., Herbertson 2012), where

local volunteers or "amateur" scientists monitor local developments, such as monitoring water quality in rivers and streams, normally relying on laboratory equipment and collection of quantitative data (see also: Verran 2011, 2012).Given the argument made in Chapter 4 that the term and the idea of villager has more traction than citizen in Thailand and regionally, I believe that there is an important contextual distinction between "villager" research and "citizen" science that deserves attention.

Salween Villager Research has been undertaken collaboratively by non-government organizations, academics, and local residents (i.e., "villagers"). Some of the documented outputs so far include a book (SEARIN 2005), videos,[2] as well as numerous presentations by village researchers and NGO staff, particularly by the organization Living Rivers Siam (see website: http://www.livingriversiam.org/index-eng.html).[3] With limited information available about the natural history, hydrological regime and ecological systems of the Lower Salween, Villager Research may represent some of the best baseline information available against which to measure future change.

I am familiar with Villager Research through my own work in the region (2006-2008) and research conducted in 2009-2013 at the Lower Salween where it comprises the political border between Thailand and Burma. Here, local residents or "villagers" collect data on livelihood activities such as fishing, riverbank gardening, weaving and identification of plant and animal species during their everyday activities. Village Researchers self-identify their own 'expertise' on specific topics such as fishing through meetings with NGO staff. NGO staff and academics

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[2] Example "Thai Baan Research at Salween" video from 2007 online at:
http://www.youtube.com/watch?v=toVP9ueH9l8
[3] Living Rivers Siam (almost known as SEARIN) is an organization based in Chiang Mai, Thailand and was involved in the first Villager Research projects and subsequently involved in trainings at other Villager Research sites within Thailand, Burma, Vietnam and Cambodia, for instance.

come to the village to act as Research Assistants, to take notes and additional photos, and to help systematize and organize the data collected by villagers through meetings and discussion. As one research assistant explained:

> [As Research Assistants] we went out to fish like villagers. We used "ngeh" [local Karen word for net], "guan" [another net]…that are the things with the wood, you know? We took photos for the record. Villagers also take photos. Not just fish, but all aquatic animals. Everything. At the end of each day then we go through each one: 'what is this fish called?' etcetera but there's also some differences here because most of the time we'll use local language. For example, ngeh is Karen language. But we compare with Thai language when we can. Sometimes, we can't, we don't know it in Thai. Sometimes, we just use local language. (Interview 18 June 2011)

Within the research process there is also a strong emphasis on collaboration, and as this RA noted, species are identified in Karen and Thai languages along with their scientific name. In some ways, this is similar to a conventional research approach; however, the *villagers* are the listed authors rather than academics or NGO staff.

It is also important to reiterate that the push for ecological knowledge documentation at the Salween has emerged within the context of hydroelectric development and advocacy. In Thailand and more generally in Southeast Asia, environmental campaigns are critiqued for their reliance on stereotypes of rural people that position them as 'close to nature' (Walker 2001; Brosius 1999; Forsyth and Walker 2008, Li 2000, Tsing 1999; Vandergeest and DuPuis 1996). Vandergeest and DuPuis argue that, in a broader sense, "Rurality and nature are typically linked" (1996: 3); as I discuss, in some ways Villager Research reinforces those links by, for instance, dismissing the economic functions of fishing.

Previous critiques have focused on the generalizations and blind spots of the community forest movement in Thailand, which positioned ethnic Karen individuals as forest conservationists and whose campaigns, some have argued, ignored Karen farming activities (Walker 2001, 2004, Forsyth and Walker 2008). These distortions had consequences, including

the 2007 passage of a bill by the Thai government that essentially allowed for community forests to be managed by residents, but placed restrictions on farming within the forest. Even before this bill became law, Walker argued that upland farmers had essentially been restricted from agricultural livelihood activities in the forest (Walker 2004). The extent that these restrictions have impacted the negotiation of livelihood activities on the ground may be disputed, but they do clearly show what is at stake in the presentation of overly romantic visions of rural, ethnic livelihoods (see also Walker 2001, 2010, 2012, Vandergeest 2003). Walker, taking aim at the image of the rural economy connected to "sufficiency" and "subsistence" argues that "It is an image of rural livelihood in which subsistence-oriented agriculture is seen as potentially providing a firm foundation for household livelihood and in which local subsistence needs are – or should be – the primary driver of economic activity" (2010: 257). Walker makes a very convincing argument that focusing on only "agricultural" options for rural peoples, most specifically producing for subsistence agriculture, seriously limits their ability to improve their economic and political position (2010, see also Walker 2012: 219-221).

Thus, while I am sympathetic to the aims of Villager Research, this chapter is an effort to think about the intersections of these prevalent stereotypes, and particularly about what is expected of rural, ethnic minority women and men in Thailand and how these expectations shape and are shaped by Villager Research.

Theoretical framework

To approach questions of how difference shapes and is shaped by ecological knowledge making, I build on work in feminist political ecology (FPE) (Rocheleau et al. 1996, Gururani 2002a, 2002b, Sundberg 2004, Elmhirst 2011a), and in science studies (Haraway 1991, Haraway 1997, Tsing 2005, Harding 2008), that present challenges to static concepts about nature, local

residents, and environmental resources. Instead of taking these categories for granted, my conceptual analysis interrogates how ecological knowledge production at the Salween has re-made gender identities and subjectivities, and how making ecological knowledge has implications for who can speak on behalf of or "know" those ecologies (Haraway 1992).

While gender is a fundamental focus of feminist political ecology and feminist geographical research, here I focus on the intersection of gender and racialized ethnic identities, following Vandergeest's conceptual understanding of racialization (2003). There are additional identities, such as sexuality or socio-economic status, that could possibly be considered, but in this case gender and racialized identities emerged as key categories and I have chosen to focus on their intersection here (Sundberg 2004: 46; see also Pulido 1996).

Within this chapter, I consider how the research itself can be considered a performance (Mahtani 2002: 437; see also Pratt 2000). This rings true to my own experience with interviews (noted in Chapter 2), where there were expectations on both sides, with roles for the "researcher" and, for instance, the "villager" to act out.

Alongside the practices of "doing" Villager Research, I also present interviews from my own research and images from Villager Research. The images from the Villager Research project are presented as traces (Braun 1997, Haraway 1992); I consider the stories or narratives that they tell and the kinds of representations that they both rely on and create. These images are important when considered alongside performances because they call attention to the gap between the representation and the daily practices on the ground.

Gendered identities

Within a broader FPE framework, I aim to contribute to the main themes set out in the feminist political ecology landmark collection (Rocheleau et al.1996), specifically that of gendered environmental knowledges. However, I also draw from post-structuralist approaches to gender which have built on and debated work on 'gender as performative' by Judith Butler (1990, 1993), and from debates on performativity in feminist geography (see Nelson 1999; Gregson and Rose 2000). As Elmhirst points out in her introduction to 'new' FPE, considering these post-structural frameworks in relation to FPE is important because of "the implication for gender-environment research of recent, embodied, performative and/or post-structural theorisations of gender" (2011: 130). Or, as Sultana argues,

> Understanding gender differences as created through practice and performativity (Butler 1990, 1993), scholars have further pointed to the ways that gender is re/negotiated and re/articulated in various environmental, social, and political contexts, where contingent and fluid relationships exist between gender and nature, and both gender and nature are constituted through practices and discourses (2009: 428; see also: Harris 2006, Nightingale 2006).

The implication for my own research is that if gender is not 'fixed' but instead produced or performed through practice, then making knowledge can be understood as one of those practices that shape gender (and not simply a document of what gender 'is' or what gender inequality might exist). Thus, my research aim is not just to point out that, for instance, gender roles are being misrepresented in the documentation of ecological knowledge, but also to show that this knowledge-making is a part of the production of gendered identities.

This chapter seeks to build on Sundberg's critical identities-in-the-making approach that reveals "the myriad ways in which social identities—not only for local people but also transnational actors—are at stake in the daily discourses, practices, and performances of natural resource management, struggles over access and control, as well as the very definition of whose environmental knowledge counts." (2004: 44) In particular, I consider not only the ways that

Villager Research represents livelihoods as gendered, but also the ways that the project plays a role in shaping identities and in determining who can "know" the river.

I also draw on productive critiques of eco-feminism, as discussed in the work of Gururani (2002a), Schroeder (1999), and O'Reilly (2010). These critiques recognize eco-feminism's merits as an avenue for explicitly incorporating and promoting women as legitimate political ecological actors, but also call us to pay attention to how important a critical focus on 'women's knowledge' is so that the burden on women to participate in the development process is not naturalized. For instance, Schroeder (1999) argues that 'global' stereotypes about women being closer to nature have shaped development policies that promoted and reinforced that relationship. To be clear about my own position, I am not arguing for a particular 'women's knowledge' of ecologies (Gururani 2002b); instead I raise questions about how participatory research has influenced these identities and subjectivities.

Intersections of Gender with Racialized ethnic identities

In addition to gender, I consider the ways that racialized ethnic identities are shaped through these same processes of knowledge production. I build on a conceptualization of gender that recognizes intersectionality, treating racial identities alongside gender because I understand them to be intertwined. By considering the intersectionality of race and gender, I contribute to the work in 'new' feminist political ecologies, which, as Mollett and Faria argue, "needs race" (2003: 123) in order to produce more relevant scholarship about gender. In addition, I understand race, like gender (Butler 1990), as performative. Race and gender are enacted, subverted and complicated by the performances of individuals, for instance in conservation projects (Sundberg 2004) and at the political border (Mahtani 2000).

Mahtani cautions that understanding identity as performative presents contradictions—simultaneously enacting, subverting and complicating, for instance, the intersection of gender and racial identities (see also Sundberg 2004). She argues that "It would be ignorant to assume that all performances can in fact challenge binary and oppositional modes of racial identification. In fact, some seemingly subversive actions enacted by informants are constituted out of, and actively maintain, racialized boundaries" (Mahtani 2000: 436). Instead, the implications or dissonances are not predicable or inevitable (Mahtani 2000; see also Kobayashi and Peake 1994, Gregson and Rose 2000). I point to the contradictory performances and representations of gender and racialized ethnic identities, because in this research I had similar concerns about how certain boundaries were reinforced while others were disrupted, sometimes through the same processes.

In Thailand, the study of race is also complicated by the conflation of ethnic, racial and national identity in the word "Thai", which can signal belonging to the Thai nation but also, more generally, to being "Thai" ethnically (there is also another word, "Tai", that refers to the broader ethnic group, see also: Vandergeest 2003, Streckfuss 2012). I tentatively point to the ways that Villager Research has invoked essentialized understandings of ethnicity, particularly the naturalized understanding of upland groups as racially "different" from "lowland Thais". This invokes a longer history of racialization (Vandergeest 2003), including violent struggles in the 1990s between "lowland Thais" and "upland ethnic groups" over resource use and resource rights; some scholars and activists have pointed to racism as a key element in that conflict (Lohmann 1999, Walker 2003).

However, the term racialization does not discard the importance of ethnicity, instead, "Racialization often builds on ethnic differences, by stereotyping them and making them the basis of discriminatory practices such as the exclusion of stereotyped ethnic groups from

citizenship rights" (Vandergeest 2003: 21). In Thailand, where ethnic differences between hill tribes and "Thai" have become naturalized and essentialized, racialization need not explicitly invoke biology (Ibid: 21, see also: Hall 1997, Li 2000).

In addition, while racialization processes have built upon colonial categories (Winichakul 2000), racialization involves contemporary practices that are entangled with citizenship, ethnicity, violence, and struggles for resource rights (Vandergeest 2003). Vandergeest explains that "Although most development practitioners would reject colonial-era racial classifications, development practice is based on generic development identities that often draw on colonial-era classifications—for example, West/non-West, villagers, or tribal/indigenous peoples" (2003:21). The essentialization and simplification of identities (i.e., racialized ethnic identities) are what I consider in this chapter, as part of an attempt to understand the production of intersecting identities portrayed in and produced through Villager Research.

Perhaps even more important for my purposes are the implications of sustained racial representation—such as on and through forest policies—and how this influences our understandings of nature and identity and their relationship to inclusion and exclusion. As I noted above, Walker (2001, 2004, also Forsyth and Walker 2008) has demonstrated how present-day environmental campaigns in Thailand have positioned the Karen as forest conservationists, discounting and even barring their agricultural and economic activities. My aim is call attention to possible ways that racialized ethnic identities have been mobilized in the construction of conservation narratives at the Salween and in the practices of conducting Villager Research. This, in turn, speaks to larger discussions about how participatory knowledge projects and

environmental narratives influence, and are influenced by, intersecting racialized ethnic and gender identities.[4]

Salween Knowledges: Who knows the river?

Returning to the question of "who knows the river" that titles and organizes this chapter, I want to begin by noting that in the *Salween Villager Research* book, the list of "main village researchers" does not include any women. Each researcher has been listed as "Mr _____". (See Figure 8.1)

While the exclusion of women as "main researchers" in local research might not be surprising, in that it reflects long-standing trends in development, this exclusion was surprising for me. At the start of this research, I already had several years of experience in Thailand's environmental movement, and that included working with a large number of activists both female and male. Prior to this research, I also visited several communities conducting Villager Research, including at the Salween, and saw women participating. From these experiences, I began my research with a set of assumptions about identity and about the role of women in Thai NGO work. I expected to find that an implication of Villager Research projects would be to better position all villagers to influence decision-making. As evidence of this, my original set of research questions did not include questions about gender or race, illustrating my assumptions that women would be included, and also about what was at stake in these local research projects. That is as participants in a participatory knowledge making project, there was reason to believe that "village researchers" and their NGO collaborators would specifically aim to give authorship

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[4]While I do not consider separately the ways that my own positionality as a white, female, former NGO staff influenced this co-production of knowledge and identity, I recognize that my own questions and interests resonate with mainstream research agendas of international organizations and that this influenced my analysis.

to both the men and women who participated in this project. As I explained in Chapter 4, the Salween Villager Research project is something that I am optimistic about. It is an innovative project that positions "villagers" as knowledge holders.

In some ways this list of researchers confirms much of the critical scholarship that has urged a rethinking of gender and participation. I also read the list of "Misters," alongside the associated images of fishing and interview transcripts, as an opportunity to understand the ways that producing knowledge and gender are interconnected, and to understand that these and other identities are not fixed or complete.

With this understanding, I present data from my ethnographic research in order to make some modest points about how gender and racialized ethnic identities are mobilized and remade. I present this data in three parts. First, I present documentation of fishing livelihood activities to think about how gender has been made and represented in Village Research. Second, I present the ways that these representations of gender identities and their intersection with racialization have played out through explication of fieldwork notes and interviews with NGO staff. Third, I consider the performances and articulation of women's roles by Karen women. Subsequently, I offer a tentative analysis of some of the intersections of racialized and gender identities to produce certain understandings of "who knows the river".

Setting the scene: Conservation narratives and representations of gender roles and identities in Villager Research

I begin with a set of images that I will return to throughout the chapter. I present these images as traces of the Villager Research project, and consider what stories or narratives they tell and what

kinds of representations they both rely on and themselves create. This "sets the scene;" it also calls attention to the contrast between the images and daily practices on the ground.

In addition to the all-male list of "main researchers" I introduced above, the cover of the Salween Villager Research book (see Figure 8.2: Salween Villager Research cover, and other "fishing images"), along with almost every image of fishing published within it, focus on men fishing in boats and with nets. The book contains just one photo of women, sitting along a small
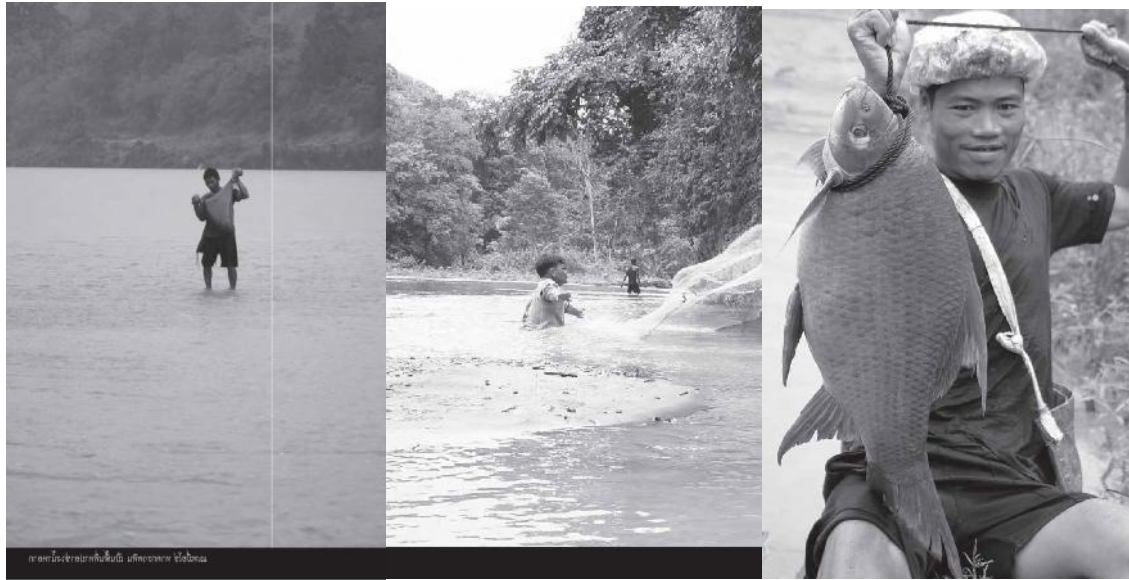
Figure 8.2: Salween Villager Research cover, and other "fishing images".

Figure 8.3: Images from Salween festival, 2010.

Fig 8.4 Image of exhibit at Salween festival "fishing expert and fishermen" 2010.

Figure 8.5 'iconic photo' that has been reproduced in books, media, NGO website and meetings; the image and Villager Research text show the women carrying the basket filled with vegetables from the riverbank garden.

weir in the river. In addition to the images presented in the Salween Villager Research book, Village Researchers are represented outside the village by "local experts" who are asked to attend meetings to raise awareness about the Salween. Figure 8.3 shows two images from one meeting I attended in 2010 where local experts were invited alongside academics and NGO activists to raise awareness about the Salween. The only person to speak from the podium as a "local expert" was the man pictured at the right; he mainly spoke about fishing activities. In addition, the images on display at the meeting, such as Figure 8.4, only showed fisher*men.*[5]

At the Salween, as at other locations within Southeast Asia (Kusakabe et al. 2003, 2006), women are the primary participants in the trade in fish caught along the river. Women traders

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[5] Additional examples of campaign knowledge that show fisher*men*: Chantavong and Longcharoen 2007, EarthRights 2005.

buy the fish after it is caught (either directly from the fisher-person or from their network of traders), and have the fish transported and sold through their trade networks. In my own research at the Salween, I have found that the female traders of Salween fish typically make more income from it than do the male harvesters who caught the fish initially.

What I saw in the documentation of Villager Research was that women's roles in fishing, and particularly in the trade of fish, was overlooked and went undocumented.[6] The *Salween Villager Research* book offers lists of species, but insists that they are fished for local consumption as part of villagers' subsistence livelihoods. As a result, not only do the activities of fish trading and selling remain undocumented, but in their omission these economic activities are understood to be judged, both by "villagers" and their NGO assistants, as not important or unrelated to the villager or to the goals of the villager research project. I argue that this, in turn, has implications for villager identities, and for what a villager can "know."

As I return to below, this portrayal of Karen residents at the Salween parallels other romantic notions of rural peoples as engaged in subsistence lifestyles (see also Walker 2001, 2004), in turn reinforcing notions of what local knowledge is. I have argued that the collaborators in Villager Research do capitalize on the political aspects of what identifying as "villagers" affords (see Chapter 4); here, I want to point out that their images also resonate with and contribute to producing the "conservation narrative" that rural people rely upon nature for subsistence and do not undertake harvesting activities for monetary "profit" (Forsyth and Walker 2008).

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[6] This was also the case at Pak Mun dam in northeastern Thailand; this problem was discussed within meetings and there was a move to purposefully include more women in the research at Salween.

In this context, even if not necessarily intentional, this narrative can help explain why trade has not been made a part of the scope of these projects, and as a result, why the women engaged in this trade are not a part of the narrative that Villager Research presents about the village. As I return to discussing at the end of this chapter, this could also have detrimental effects on possibilities for compensation if these large dams are built.

In sum, although women participate in fishing activities and in Villager Research, they are not represented in its end products. However, I argue that there is even more at stake than this misrepresentation. In my research I also saw how individual identities shifted and are at stake in the process. Next, I present a short explication of how identities in the village have shifted.

Part 1: In the village: Making experts, remaking gender?

One significant change I encountered was in the ways that individuals presented themselves as experts, not only to me but to one another. As it was men who were identified as lead researchers, there was a gendered element to these changes. I noticed that after participating in the Villager Research project, villagers stuck to their expertise areas. For instance, when interviewed about fishing, if an individual was part of the Villager Research fishing group they would tell me this and it would mean that they could provide useful information for my research. Also, community members would defer to those individuals within conversations, both informally and in village meetings. While difficult to pinpoint in specific examples, let me present one scenario in which I saw the identities of "villagers" shift throughout my fieldwork. In particular, I focus here on gender identity and expertise.

> I went with my research assistant to the home of a middle-aged couple whom had been identified by more than three other interviewees as "experts" in herbal remedies. They are both recognized as traditional doctors in the village. In practical terms, this also means that they are able to locate and identify local plant and animal species and the ways these items can be used for treating ailments. The wife, Wandii, told me that she had developed a

disease which was "really terrible". [7] It was clear during our conversation that she was feeling better now, even if not in perfect health, and she told me about this and her other life experiences at the start of the visit.

After we had some tea together, I asked them both about local plant species and herbal remedies. I also mentioned Villager Research. Wandii told me that did not participate in Villager Research because she had been ill. At this point, the interview changed gears. Wandii had responded to nearly all my earlier questions; she had been talkative and eager to discuss life in the village and about her and her husband's life history. After I mentioned the Villager Research project and plant species, she suggested that her husband, Wanankan, "answer my questions". She noted that his knowledge on this topic was more "useful" to me because of his participation in Villager Research. Wanankan, although not as articulate as his wife, proceeded to answer my questions for the rest of the interview.

In this case, I approached the couple with the assumption that both were equally "expert" in herbal remedies and species identification; they had been referred to as experts by several other people in the village. However, Wandii's hesitation to answer questions because she did not participate in Villager Research speaks to how the project is reworking expertise, and in specifically gendered ways. While in this case, Wandii had an excuse for not participating, I am certain that this cannot explain the absolute lack of female authorship. It points to a shift of identity in terms of who can "know" about particular topics. When women are "off the map" as neither authors nor experts, the gender identities and authorities of men and women on the ground are remade.

My experiences in asking questions about fishing were similar. It was those (male) individuals who had been a part of the project that residents, male and female, suggested I interview. These male experts were also requested to participate in NGO meetings outside the village. Over time I did interview villagers who did not participate directly in Villager Research, but those experiences alongside my initial encounters with local "experts" in the village suggested that a shift had occurred as related to gender and expertise. There were several times

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[7] Interestingly, this came out as part of my initial set of interviews when villagers thought I was a medical student.

that I attempted to start conversations about fishing with women only to be directed by those women to the same few men who made up the Villager Research fishing experts group.

In addition to fishing and herbal plant collection, riverbank gardening is another significant activity documented through Villager Research. It consists of planting crops alongside the river when the water levels are low (at the Salween this is from October to April). During the high water season, the sediment is deposited along the banks and provides a very fertile planting ground. The Salween River is known to have a particularly high sediment load; no fertilizer is needed and only minimal care is required. Vegetables like pumpkins, squash, but also tobacco (for sale and consumption) and peanuts grow well in the sandy soil along the river.

It is important that research collaborators have been successfully distributing information about this much understudied agricultural activity to the media and to the general public. However, I saw an unexpected gendered dynamic emerge in the documentation of knowledge about riverbank gardening in the Villager Research documentation, NGO meetings and public information hearings. Women (not men) were asked to speak about riverbank gardening, identify vegetable species, and it was the photos of women in riverbank gardens that were circulated and included in books. There is one rather 'iconic photo' (Figure 8.5) that has been reproduced in books, media, NGO website and meetings; the image and Salween Villager Research text show the women carrying the basket filled with vegetables from the riverbank garden.

That women have become 'experts' on riverbank gardens resonate with global stereotypes or assumptions about gardening (Schroeder 1999, Friedberg 2001) but again this clear cut division along gender lines is surprising to me. For instance, I present this excerpt from my field notes, as one perspective on every day practices of riverbank gardening:

We went to the riverbank garden to collect some vegetables for dinner. [I was staying with one woman whose husband had recently been jailed for cutting down trees - that is another story. She] had lamented how she wished she had her husband around to help out with the gardens and how she had to get a lot of help from her sister and her sister's husband to clear and plant the garden, and they already had their own garden. To clear the bank is a lot of work, you have to clear out grasses and other shrubs that have emerged since the previous year. After all this work, she was quite proud of the amount of vegetables cultivated this year. At the river bank there were several men in the plot next to hers, clearing out grasses (which spring up from time to time). I was there with my research assistant, Kay. At one point we wanted to get some fruits down from a high tree and it took 4 people to get down, me, Kay, and two men. It was in a shared field. Lemongrass was collected on the way home, at the suggestion of Kay…We also stopped at the small store and bought some canned fish (Kay's favourite food!) and arrived home to make dinner. Long conversation ensued about health and MSG, and the use of cumin. In the end, canned fish salad was too salty! (Field notes Dec 2010)

My main point with this excerpt is to show how women and men work in the garden on a daily basis, how they help each other out and conduct gardening activities together. In my research, both men and women engaged in and were responsible for riverbank gardening. Yet, these lived experiences contrasted with the ways I saw riverbank gardening documented: in photos, women were always carrying the basket, carrying the vegetables. Women were always asked to be the experts on gardening. More to the point, in the past six years working with different organizations, I have never seen a man asked to speak about riverbank gardening. These observations and experiences about the gendered documentation of livelihoods led me to think about what the implications might be, not only for compensation in terms of fishing but in terms of the ways that "villagers" understand and practice gender and expertise.

In sum, I want to emphasize that the implications of the process of research are found not only in the fact that "gendered knowledge" is produced, but in how these activities shape gender on the ground. Gendered knowledge was reified in particular ways through the project and came to shape how people see themselves as either expert or not expert; as either knowing woman or knowing man. In "Part 2", I discuss how the roles and identities of NGO staff as research

assistants and translators also influence understandings of gender, but in ways that intersect with racialized and rural stereotypes about the Karen in Thailand.

Part 2: NGOs and Environmental Narratives: Reinforcing gender and racial identities?

Interviews with many of the Research Assistants involved in Villager Research highlighted the challenges for the project and for themselves in facilitating villager participation in the project. For the NGO staff, travelling to the Salween to live in the village over the course of several days or a week in order to help record data took them away from their regular lives and sometimes made them uncomfortable. Challenges around working with individuals from different ethnic groups and who spoke local languages or different Thai dialects were also noted.

Most of these concerns were not raised in the interviews at first, but these issues were presented in response to my questions about how many women had participated in the projects and what kinds of roles they had as researchers. This underscores the performative elements of research and of interviews (Pratt 2000).

I present fragments of two interviews I conducted with NGO staff where the issue of gender and racial identities were discussed. The first interviewee, a Villager Research Assistant named Tan, was a young man from Northeastern Thailand who also worked on Villager Research projects in there but is now based in Chiang Mai. His response explained some of the challenges faced as a RA when I asked him about women's participation in Villager Research,

> [The] Issue at Salween is that they feel like the women… they don't participate and I don't know about problems related to language…quite different from [another case in northeast]. …It is different… in northern Thailand [like in the case of Salween], the people have a lot of ethnic groups, a lot of different cultures. I know that in some cultures, some ethnic groups, men and women are not equal. Maybe in some groups man work a little bit, but women work very hard. Very organized. But [in] some ethnic groups, men work very hard, the women stay home and don't talk anything. In Isan [NE Thailand], men and women are the same. Actually, in Isan the women [have] good

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knowledge; good local knowledge. They know. They are also fishermen. They make farms. They can talk a lot. And man also, but I think in Isan, it is more balanced than at Salween. In my hometown, it [does] not have [people from different] ethnic group[s] – just only one village…Women and men are same. (Interview, 2013 – conducted mostly in English)

In his response, it is clear that he believes there are differences in the practices of local ethnic groups compared to those he considers a less diverse part of Thailand, the Northeast, where he is from.[8] This reveals how he sees his own identity, as an outsider at the Salween and as a "villager" in the Northeast. He also identified significant differences in the ways that women acted and what they could know about based on the way they were perceived to lack experience as farmers or in fishing. What struck me was how he sees himself, and villagers from Thailand's northeast, as *different* from those at the Salween, in cultural, gender and livelihood practices.

These comments regarding "difference" are significant. In this context it is necessary to consider the ways that ethnicity is employed as part of producing racialized identities. In doing so, I build on the aforementioned understanding of racialization and research into forest politics that has has shown how certain groups of people, for instance the Karen, once considered "Thai" have been made "tribal" through development interventions (Vandergeest 2003: 24-25; see also Lohmann 1999, Li 2001, Tsing 1999). This represents a more preliminary component of my research, a move to consider the "messy" conjunctures that build on and are also part of reinforcing notions of race and racialization (Vandergeest 2003; Mollet and Faria 2013).

In Thailand, parsing the racial from ethnic or national identity is all the more complicated considering that "Thai" can refer to either Thai citizenship or Thai ethnicity, more directly connecting racialization to processes of inclusion and exclusion (Vandergeest 2003: 23; see also:

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[8] This is interesting for a number of reasons, one of which is that I do not believe the Northeast is "less diverse". There are different ethnic and cultural groups living across Thailand, including in the Northeast where many individuals identify as ethnically "Lao". However, what is important is that this NGO staffer sees a difference.

Streckfuss 2012). This notion of "difference"—that somehow the villagers at the Salween were different from the "normal" construction of villager—came out in the second of the noted interviews, with an NGO staffer named Jackie.

She pointed out to me that Salween Villager Research, as it is translated on the book cover in English, in Thai reads: "Karen Villager Research". In other Villager Research projects there is not an ethnicity attached to "villager" or "villager research" because, I would argue, they are assumed to be "Thai". While this builds on a history or racialized and spatialized difference (Vandergeest 2003), Jackie also discussed some of the ways that working longer-term on the Villager Research project actually shifted her own identity as a "Karen villager":

> She explained that in Thai elementary school, she had been taught that Karen people were "bad" people who "destroyed the forests"; they were backward people who wore old clothes and did not understand modern education and technologies. The text books, she explained, included images to accompany these problematic narratives that showed Karen looking unkempt next to neatly dressed Thais.[9] Villager Research, she argued, was a part of changing those perceptions. In fact, for her, she had learned more about how to be proud of her family's Karen traditions and to better articulate to outsiders, like myself, the ways that "the Karen conserve nature".

Jackie notes that from helping with research conducted by other Karen people, she now tells the story of herself as Karen in a "different way". She is more confident to tell outsiders the stories of "nature and forest conservation".

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[9] An example from Pathom Five (Grade 5) pupils prepared by a private school illustrates this portrayal of hill tribes (discussed in Hongladarom 2000):
Which of the following cannot be considered a cause of deforestation?
a. Capitalists illegally fell trees.
b. Hill tribes (chao khao) do slash-and-burn farming.
c. Villagers (chao baan) clear forests and make a living on the land.
d. No law punishes wrongdoers.
Hongladarom explains that "The expected answer is choice (d). So hilltribe people, along with capitalists and villagers, are remembered as agents of deforestation. Note that there is no race or ethnicity attached to the words capitalists or villagers, whereas the term chao khao denotes non-Thai Northern minorities" (2000: 1).

This both resonates and contradicts what Tan noted above. Importantly, the focus on nature conservation seems to be the same, but while Tan pointed to the "lack of modernity/gender equality/education" of ethnic villagers as a challenge, Jackie actually positions this story of conservation against other narratives that have placed ethnic villagers as "less than Thai".

In my assessment, this points to the role of the identities of the researchers themselves in the project, to the possibilities and challenges for telling stories of representation, and to opportunities both for empowerment and for the reinforcement of old stereotypes and essentialized ethnic categories.

Part 3: "We want to work!" On women and work

In June 2012, I helped lead a trip to the Salween with a group of 12 students from mainland Southeast Asia, including two students each from Burma, Cambodia, Laos, Southern China, Vietnam and Thailand. This trip was part of the "Mekong School" program, which focuses on human and environmental rights education across the Mekong region. The emphasis of this Salween trip was on issues of dams, development, local knowledge and citizenship (in Chapter 6, I discussed earlier visits with this student group in 2010-2011). While this trip was coordinated by local NGO staff who had participated in Villager Research as RAs and translators, it was not a direct part of the Villager Research program. However, this meeting did provide a space for members of the village women's group to express their views about the role of women in the village, and their own interjections into the meeting are particularly significant when contrasted with a "conservation narrative" that discounts monetized activities or activities for trade in favor of subsistence livelihood activities.

Twenty people, students and teachers together, sat around a community hall overlooking the Salween River; the room had tables set up in a square and we sat on the ground on the outside of the tables. Five community members (all men) joined the meeting at the head of the table, include three village leaders, one of whom was the elected village headman. In addition, four local NGO staff were milling around and an additional 15 to 20 "villagers" were sitting around the outside of the room; others came in and out preparing lunch and stopping in to see what was happening in the meeting. At the rear of the room, a group of seven or so women led by a local NGO staff member entered after the meeting had begun.

There were expectations and assumptions related to the roles of the student group and the community. What I aim to highlight are what at first appeared to be the token participation of women, who were positioned in the back of the room, and the response of the local women's group to this token inclusion in the meeting. Based on my own experiences in the village, I believe this meeting reflected a longer history of meeting culture that required the women's group's participation, and this was an opportunity to discuss and articulate longstanding concerns (i.e., "setting the record straight").

The village headman began by telling us about the history of the village. He emphasized how it has evolved over time (similar to what I discuss in Chapter 6). He spoke for more than 30 minutes. I present the text of the questions that followed (25 June 2012):

> Student: How do people in the village "make a living nowadays"?
>
> Village Headman: "There are many different ways; for instance, trading, selling in the shops, fishing in the Salween, working in the city. Depends on the season, too. They can also collect non-timber forest products".
>
> The main leader of the trip, Sally, to the women's group: "What do you need to make life better?"

A local NGO staff responds: "People here mostly collect leaves from the forest [to make roofing], they can also do hired labor for which they receive around 250 baht per day, but that is only for people with an id card."

One woman in the back of the room raised to speak, loudly; this made an impact, we were all sitting on the ground: "Women like to work hard; we [women can do] strong work, can compete like men. Weaving—is not enough (*mai paw*), sewing—is not enough."

Thai student: translates both responses to English.

Sally asks the NGO staff to translate her question to Karen language.

NGO staff asks the women's group, in Karen language: "What do you need to make life better?"

A second member of the women's group responds, in Thai: "I would like to have job security. Some organizations provide support for women's work, but it is not permanent. Not secure."

Student: "What NGOs support women in this village?"

Jane, NGO staff: "CCF [the Christian Children's Fund to support students to attend school], and then [local NGO], give goats and pigs to children's families [Those children who are enrolled in the CCF program]."

Women's group member: "The babies [of goats and pigs] must be given to neighbors."[10]

I present this exchange for a number of reasons, not least because it left an impression. Their comments showed that the women do not consider weaving and sewing as "enough". While it is not clear in this exchange who supported the weaving and sewing activities as part of the women's group, I was informed later that both the local government (OBT) and another Thai NGO presented and advocated for the women's group to take up these activities. The main issue that the women's group encountered was a lack of a market for these goods. If they wanted to send them to be sold outside the village, they would have to pay someone to transport and sell them, and after that, there was no profit to be made (notes 25 June 2012).

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[10] I present this transcript in English, it was mostly in Thai – with some translation to English and one question, at the request of Sally, was translated into Karen. The rest of the meeting provided an interesting exchange that touched on a variety of topics and questions. For instance, one woman asked the students from China about their government's role in building dams upstream and committing human rights abuses.

In addition, members of the women's group in this instance did not see the animals as being as useful as jobs would be. In fact, during my stay in this village people routinely complained about the goats "eating everything" and decried the pigs (the ones not tied up or confined to a hut) for defecating on the paths that people use to walk from house to house.

In this context, it is significant that a group of women felt they needed to say out loud to the students, village leaders, and NGOs that they like to work. Within a broader context of "women's work" and decisions and representations being made about gendered roles and gendered knowledges, this group of women can be seen as actively contesting or redefining the work that women want to do. In Sundberg's important study of how "conservation-in-the-making" is also constitutive of "identities-in-the-making" (2004, following Haraway 1997), she calls attention to how gender does not "pre-exist its construction" (Haraway 1992). Gender is not something that exists outside of daily practice and negotiation—it is constituted in practice, "not *before* the action starts" (Haraway1997: 29; Sundberg 2004).

Sundberg (2004) also discusses the collaboration of a local women's group; she showed how the women's group tended to both reinforce women's roles and identities, but also, they created a space where women could challenge or transgress those roles or pre-existing notions of gender. In revisiting this fragment of the meeting, I also encountered paradoxical actions. I read the performances as a rupture to the representations of Karen women that are happy to stay at home, weaving, or as the NGO mentioned, in and around the village collecting leaves.

It could also, in an indirect way, refer back to the dismissal of the women's work more generally as part of the work by NGO staff. The articulations that "women want to work" with the lack of women authors or fishing researchers in Villager Research highlights an underlying element regarding women's roles and how rural ethnic women are repeatedly portrayed as

producing not for money, but for subsistence. These contestations and negotiations reflect a broader tension with what women should be doing (weaving or working?), and as a result, I consider further below how this has also influenced what woman are documented or facilitated to know about.

Discussion and Conclusion

Separately these three explications —the images and research that fail to include women, the explanations by NGO staff that this is related to underlying ethnic or cultural differences between "regular villagers" and the Karen villagers, and this incident where Karen women felt the need to stand up at a public meeting to announce that they "want to work" —provoke questions. Taken together, they highlight that identities, particularly, but not only of Karen women, are at stake in this local research project. Overall, it demonstrates the contradictory ways that ecological knowledge and identity are co-produced, and the ways that difference plays a role in the making of expertise.

The analysis presented here, even if tentative, contributes to research in science studies that has considered co-production of scientific research and identity (Haraway 1997, Jasanoff 2004), and to important work in geography that has considered how gender and race are at stake in conservation (Sundberg 2004). This analysis is also a start to understanding how the practices of making "local" ecological knowledge paradoxically reworks identities by both invoking and challenging racialized ethnic and gender identities.

At a very practical level, the analysis presented here also highlights that overlooking gender-specific knowledge is detrimental because this discounting of women's or men's

knowledge is antithetical to the aims of Villager Research. It also matters in terms of who becomes an expert and of who can "know" the river.

What I am not proposing is a corrective that privileges or documents a separate women's knowledge. Taking cues from Gururani's assessment of third world women's knowledge in development, a move to privilege women's knowledge would be problematic, not in the least because "everyday practices of livelihood are usually generated jointly after negotiations and discussions and cannot be neatly categorised as women's or men's" (2002a: 319). Instead of working to "carefully and sensitively uncover women's knowledge" Gururani urges scholars to "explore the cultural politics of knowledge production which gives men [and women] the power to overlook systematically and marginalise women's knowledge" (2002a: 320). At the Salween, the production of gendered identities are evident in this participatory project, but it is also important to consider the ways that the social, political and historical context also influence the processes of marginalization.

Taking a longer view, it is essential to consider the racialization of ethnic difference and resource access in Thailand, and how these categories have become fixed by the work of colonizers, forestry officials, and even well-intentioned development practioners, activists and academics. Positioned within this lineage, Villager Research is in a rather peculiar position that compels further study. Advocating for "villagers" but then identifying Salween residents as "Karen villagers" can serve, as noted above, both to shift Karen identities to "conservationists" and to reinforce essentialized characteristics of ethnicity that build upon racialized stereotypes and solidify "difference". Together, the examples presented here also demonstrate a negotiation of the prescribed identities within the conservation narratives that privilege subsistence over trade (Walker 2001, 2004, Forsyth and Walker 2008), and that present essentializations over

complex identities (Forsyth and Walker 2008, Tsing 1999, Li 2000, Vandergeest 2003, Brosius 1999).

However, the analysis presented here is intended to provoke questions more than make declarations. Thus, a few qualifications. While I do point to the role of narratives of conservation, I do not mean for this to be read as prescriptive analysis or an attempt to identify a single cause for this marginalization of women in making ecological knowledge. The role of NGOs and villagers together in producing narratives that privilege narrow ideas of conservation and that in turn exclude economic activities, and women, as important Karen villager knowledge is in need of further study.

I also raise questions for future work. I am interested in conducting further research into the ways that Villager Research is being undertaken at multiple site throughout Southeast Asia. If these practices of making ecological knowledge shape gender and race, then it is also worth considering how part of these projects might also be about the unmaking of these constructions and performances in ways that are strategic for campaigns and that are more socially just. In effect, by more seriously considering how local research can reinforce or invoke problematic gender relations, acknowledgement and understanding of this influence could provide possibilities for discussion of ways to address marginalization at the village or community level.

In this case, further study is necessary not in the least because these representations of livelihood activities could have material implications for villagers. In a similar case, a proposed dam on the Mun River in northeastern Thailand where the first Villager Research project was developed, fishing was also a major focus. Here, some scholars have argued that the exclusive focus on fishing livelihoods in research (not only in local research but also in 'scientific' studies such as environmental assessments) within the context of dam development overlooked other

important river-related livelihood activities. This, in turn, had implications for who received compensation for the dam's impacts when it was ultimately built (Foran and Manarom 2009). For instance, compensation went to households who identified as headed by "fishermen", but not to those who might engage in fishing on a more seasonal basis and not for families who fished in small streams (personal communication, 2009 fieldtrip to Pak Mun).

At the Salween, it appears that fishing has also emerged as a main focus in Villager Research, in NGO campaigns, and in this chapter, but I know from interviews and experience that researchers were cognizant of those critiques and made a move to incorporate additional livelihood activities. Yet, fishing has still been represented as a male-dominated activity, even when women were involved in data collection. Within the context of proposed dams, this could have implications for who receives and is able to make claims to or about compensation and resource access.

Walker has fiercely critiqued the general emphasis on subsistence agriculture in Thailand (2012). He argues that for rural development to focus primarily on subsistence agriculture, "would be to condemn many rural households to a sector of the economy in which the potential for livelihood transformation is very constrained and would exclude the substantial percentage of households that are now disengaged from the agricultural sector" (2012: 258-9). In his own work in Chiang Mai, he highlights that northern Thailand's peasantry desire more diverse understanding of development, and greater diversity of projects, agricultural and non-agricultural.

While this analysis has an explicit monetized economic element (which is important), economic status is not the entirety of what is at stake at the Salween, nor is it the whole of what the interjection by the women's group conveyed to the students, NGOs and village leaders. There

is an important underlying theme here connected to the dissertation's focus on co-production and on how rule and resistance are made together.

These efforts by the women's group to be seen as "capable workers" are more than a struggle for or against a single project, like Villager Research, but are better understood alongside the ways that other development projects and narratives have promoted local livelihoods, such as sewing and weaving, but did not provide monetary benefits. I argue that the dismissal of economic activities, formal and informal, at the Salween is better understood as part of a longer history of placing residents "off the map". As such, the work by people at the border to receive recognition of their efforts—politically, historically, in conservation and yes, economically—to "know" about their own lives and the village, not just as "Karen" but as individuals with multiple, shifting identities is a significant disruption to more established narratives and the roles these narratives have previously envisioned for "hill tribes". In my assessment, these efforts are connected to the work to produce more meaningful connections with actors and institutions, state and non-state, that can work for and alongside Salween residents.

CHAPTER 9 CONCLUSION

When I began my doctoral studies, I did not anticipate writing a dissertation about people investing in the institutions of governance, including the political border. After working for TERRA in Bangkok for two years, I knew that I wanted the opportunity to study the politics of dam development in a different way than I had done while working with an environmental organization. TERRA was an amazing working space with a group of brilliant individuals, with whom I was fortunate to work and who pushed for critical thinking and a detailed, grounded knowledge of development plans and their outcomes. There were limits to the scope of our work, but these limits still exist as part of academic study, as discussed in Chapter 2. Still, the last argument that I expected to make would have concerned how residents engage with the "state" and express a desire to be part of the Thai nation.

Overall, in this dissertation I have argued that residents play significant roles alongside institutions to make and remake the conditions for development, and are as much involved in producing environmental rule as they are in resistance. This runs in contrast to analyses which envision residents and local resistance subsumed in development projects. The arguments I present here also contribute an adjustment to literature on the study of upland minority groups, whose residents and ecologies have repeatedly been described as "peripheral" or even as "evading" the rule of states. This dissertation is ultimately a story about the ways that agency and power are conceptualized, and the ways that local residents, seen by many as "outsiders", strategically and practically engage and invest in state and non-state institutions and relationships as a way to construct alternatives to present circumstances and future threats.

There is a wealth of research that has masterfully considered the detrimental and many times unintended effects of development projects (Li 2007, etc), particularly with regard to displacement (i.e., Vandergeest, Idahosa and Bose 2006, Oliver-Smith 2009), and even more specifically to dams and displacement (WCD 2000; McCully 1996; Bakker 1999; Sneddon and Fox 2002, 2006; Hirsch 1996, 1998, 2001). My main goal was to provide a nuanced analysis of the multiple issues, motivations, and actors that were present in the planning and decision-making stages of development that I witnessed or became aware of during my research.

Taken as a whole this research reveals the ways that local residents alongside other actors such as environmental consultants and even NGO staff are involved in projects of rule, even as they are enrolled in some of the more expected projects of resistance. I presented analysis of how the category and the self-recognition of 'villagers' is being remade through Villager Research, and how Villager Research can be critiqued for the influence of gender and race on the participation of villagers and the documentation, understandings, and perceptions—the knowledge—that result. I also considered the ways that these knowledge making activities are connected to the co-production of political borders, geographical scales, and the imagined national community.

The chapters taken together also demonstrate that the maps, the plans, and the decision-making processes of dam development *before* construction have implications for the ways that villages, borders, territories and even nations are remade. I began to draw this out in the discussion in Chapter 5 about imagining futures. Development planning, and development more generally, involve the engagement of people and institutions in imagining, together, particular visions of futures and communities. The prospect of the future and things to come is a thread in almost every chapter in this dissertation: dams will be built, impacts are expected, mitigation

measures proposed to ensure that projects will proceed and impacts will be dealt with. Promises are made about the future. Even the projects of "resistance" to development are also about imagining the future, with an emphasis on the differences or alternatives to conventional or state-led projects, and with more of an emphasis and consideration of who benefits and who loses in or is left out of the proposed project. Projects of resistance contain their own set of promises, off-setting the political and social risks that attach to them with a promise of better outcomes than those presently offered by the state or the developer.

This is not to argue that the past is not also shaping these activities and relationships. The histories of the river-border and the ways that these historical narratives have positioned people at the physical and the political edges of Thailand can be quite problematic; this is something that is very much worth "resisting" or reimagining. The *Salween Study* that I introduced in Chapters 4 and 7 is a good example of this collaboration between past and future: presenting archaeological findings for consideration of whether or not they will be part of Thailand's future.

Now I return to promises and to thinking about the future. In drafting Chapter 5, I was thinking about the kinds of promises that I made in the course of this research. Let me go through some of the important promises here, particularly those made in the introduction to this dissertation.

Promises made in the introduction

I began with the question of 'who makes ecological knowledge and how? How is it used and mobilized?' In the context of dam development at the Salween River, along the Thai-Burma border, these questions were developed within the context of the river being declared 'unknown' and state authorities lacking the expertise to develop the basin (Paoletto and Uitto 1996). With

the subsequent rush to develop hydropower, there have been a myriad of actors and institutions interested in producing ecological knowledge and in making claims about the Salween. In addition to the companies and government agencies that have been working to document the Salween River for development, I was interested in the ecological knowledge produced by human rights organizations, environmental organizations and by Salween residents. I also asked what particular visions of order and nature are enabled, or made less possible, through the making of environmental knowledge and governance? What kinds of territorial claims to resources or authorities are produced or transformed through these knowledge making practices?

There are two main contributions that I presented or 'promised' in the introduction, and that I have argued for in the dissertation. First, I have shown the myriad actors that are involved in making knowledge, and the ways ecological knowledge has been mobilized through enactment and participation in governance processes concerning development of the Hatgyi dam. Second, I examined how concepts and institutions that were assumed to exist independent of everyday life, or to make up the terrain upon which everyday life plays out, are continually produced through the practices of making ecological knowledge. In this I included territories, borders, and scales. I also addressed how the subject and the identity of the villager are remade in and through the practice of making ecological knowledge.

Investigating how knowledge is made and by whom was part of a broad effort to understand the role of multiple actors in the development and advocacy processes of the Hatgyi dam, and of the Salween River more generally. Specifically, I have addressed this throughout the dissertation by introducing "ethnographic fragments" from research observation and from interviews with key actors who produced and mobilized ecological knowledge, including: Salween residents (or "villagers"), non-government organizations and their staff, environmental

consultants, the developer EGAT, and the Hatgyi subcommittee, and also from my own role and presence at some of these events and programs.

In Chapter 6, I demonstrated how the work of multiple actors—residents, activists and environmental consultants—co-produces the political border through their own knowledge practices and performance, activities that can together be termed "borderwork". By providing an alternative interpretation to the oft-repeated notion that "we [residents] didn't cross the border, the border crossed us", I highlight how the political border does not exist "out there" but rather is intimately connected to efforts by residents and other actors to position themselves in relation to it, to call attention to it, and to give it narrative weight in their efforts to shape environmental and development decision-making.

Scale is another concept or category that is assumed to "exist", ready to be chosen for analysis or to be deployed in cartographic representations. In Chapter 7, I focused on the EIA process and the ways that it creates (as opposed to "chooses") scales of assessment as part of environmental decision-making. I also considered the role of the *Salween Study* and the claims and scales it made within and against the EIA process. This chapter adds to broader political ecology debates on scale, which have largely incorporated analysis of scale without engaging existing debates in human geography, where scale has been critically considered as a process. Within that chapter, I also argued that the study of EIAs is a significant topic worthy of further attention. Both chapters 6 and 7 also address how different kinds of territorial claims are made through ecological knowledge, and to what effect.

While the "nation" as an imagined community has not necessarily always been spatialized cartographically, it most certainly has been re-presented in and though maps (Winichakul 1994). Questions of who belongs in this mapped nation, and who is able to imagine and map the nation,

are points of continual contestation. In Chapter 5 I highlighted the links between national imaginings and promise making, which in some instances showed that even promises can be "spatialized". I argued that promises were inscribed in maps, and that as a result, the promises of dam development circulated more widely, enrolling local residents and wider Thai audiences in the stories of nation and development.

Although presented at opposite ends of the dissertation, Chapters 4 and 8 address the question of who makes knowledge, while also considering 'who knowledge makes', contributing to studies of subject and identity making. In Chapter 4, I focused on how villagers as subjects (Agrawal 2005a) are re-made through participating in and performing Villager Research. I argued that in examining how villagers and knowledge are made together, there exists the possibility of changing broader ideas about who makes legitimate claims to know the river and about who can be part of river governance. In Chapter 8, I revisited the project of making Villager Research to consider the ways that the villager identities have been made in terms of difference. Both chapters address the particular visions of nature and order that are fashioned in making knowledge, particularly with regard to what or who is left out or made less possible. I also questioned who makes knowledge and how it is made, who is left out, and who is included in the practices of making knowledge but then not recognized as experts of authority, all in order to think about how authorities, identities and subjectivities are co-produced (Sundberg 2004, Haraway 1991). The contributions of Chapter 8, while tentative, are made more significant given what I show about the production of borders, boundaries, states and nations that is implicated in knowledge making. Taken together they pose a set of questions for future research about the implications of environmental governance for individual and group identities and for the subjectivities of ecological activities which remake rule alongside resistance.

More broadly, in the introduction I asserted that my analysis, connected to my motivations for conducting research, would aim to modestly disrupt the static narratives about upland groups, including the Karen. Attached to this motivation was also a desire to rethink the ways that agency is conceptualized in development (i.e., what is considered agentive, who is considered an expert, an authority) and the ways that different actors work *together*—rather than only against one another—in projects of rule and resistance.

In revisiting the introduction, particularly the motivations and critiques that I offered, I can see that in some ways the analysis in this dissertation complements part of Scott's argument (in *An Anarchist History of Southeast Asia*, or my interpretation of his argument; see pages: 24-26) that I categorized as part of my critique of the scholarship about upland residents in the introduction. I refer, in particular, to Scott's argument that states are made in relation to, and even require, their "edges" in order to exist. For instance, he writes as an overview to his argument, that

> the history of hill peoples is best understood as a history not of archaic remnants but of "runaways" from state-making processes in the lowlands…Many of the agricultural and social practices of hill peoples can be best understood as techniques to make good this evasion, while maintaining the economic advantages of the lowland connection… The effect of all state-making projects of this kind was to create a shatter zone or flight zone to which those wishing to evade or to escape bondage fled. These regions of refuge constituted a direct "state effect" (2009: 24; see also Mitchell 1999).

I can position this work as both a critique and a complement to that project. While Scott is interested in the relationships between "runaways" and "states," he is more attentive to practices or techniques that people develop for purposes of resistance or "evasion" (this in turn, can also be perceived as reifying the central position of the state, or the state itself as an "object", see Mathews 2011: 13-14).

As a complement or contribution, I address the ways that individuals at the edges of states work to remake institutions and authorities in meaningful ways in their everyday lives, for instance through resistance to dam projects and making ecological knowledge about rivers. I have shown that 'resistance' is often carried out through rhetorical and physical efforts to bring the state closer, to improve its effectiveness at its edges. Given the fractured nature of politics and of state activity, *evading* the state in one sphere (hydroelectric development) may require a narrative invocation or physical *enrolment* in its presence in other spheres (border security, census, royal and constitutional subjectivities). In the contemporary practice of environmental governance, knowledge-making becomes a key terrain for residents to engage in these struggles to both resist and gain the attentions of the state.

Future Research

The promises made in my introduction and the limits to this research have shaped what I am planning for future research. Three main questions or projects that I intend to investigate are: how sovereignty is enacted in locally focused environmental decision making; questions of "who owns water" (water and property); and an expanded study of Villager Research as it has been implemented across multiple sites.

First, questions of extraterritoriality and sovereign authority emerged in my research, particularly as seen in the ways that Thailand made claims to and promises about the Salween River in Burma. I am interested in exploring how environmental governance is an important part of "deciding who decides" or producing authorities to natural resources (see, for instance, Lund 2012).

Second, picking up some of the questions I was initially interested in regarding science studies' approach to materiality, I plan to address questions of water and property. I will explore

the challenges water as a resource poses to territory-making, and also question "who owns" water—in light of debates on "water grabbing", for instance. While I have begun analysis of these topics, in my assessment this will require further comparative work across river borders and between these and interior sites, to understand the ways that territory and claims to water (i.e., in the forms of property agreements) have been made.

Third, I plan to follow questions of knowledge production and circulation, focusing on Villager Research. As a methodology, Villager Research has been circulating and travelling to more and more riverine sites across Southeast Asia, not just in Thailand where it originated but to Burma, Laos, and Vietnam. As a result, there has been a shift in the ways that Villager Research is being used and discussed. From the original idea of locally-rooted knowledge that would directly inform local or single-project decision-making, there are new discussions and directions for Villager Research. As a result of this shift, activists and residents have proposed that Villager Research can inform climate change policy and water governance, scaling up the original methodology's aims to influence national or even regional policy and cross-border decision-making processes. My aim is to investigate how this methodology circulates to different countries and contexts, and its contributions to increasing villagers' participation in policy processes, particularly in climate change policies and multi-scale water governance. This will also be another way to consider questions of ecological knowledge in multiple cases across Southeast Asia.

More than potatoes?

This past year, I had the opportunity to visit one village where I conducted a large portion of my research in 2010-11. Located at the confluence of the Salween and Moei Rivers, the experiences with riverbank gardens and giant potatoes that I introduced at the start of this dissertation took

place in this village. I actually visited twice in the past year; the two experiences were bittersweet. One young family, whose wedding I had previously attended, had moved away because they could no longer make ends meet farming on their small parcel divided from the wife's family's land, and there were no other job opportunities available to them. On the "sweeter" side, the father of the family that had hosted me during much of my time at this village, who during this period had been jailed unjustly for "illegal possession" of teak, had returned. Family members and neighbors smiled when they saw him in the village. His sentence had been reduced from five years to three, for something along the lines of "good behavior".

On my most recent visit, I was leading a group of scholars and activists from Burma and China. These individuals conduct research and follow the developments of the Salween in those countries, and had come to Thailand to discuss ongoing research as part of a workshop that I co-organized. The intention of visiting this village in Thailand was to discuss experiences with dams and development, strategies for responding to them, and to hear what issues "villagers" identified as concerns. I was in the accustomed, important, but still uncomfortable role of providing translation for group discussion.

One activist from Burma asked the villagers what they thought about the dam and what they wanted to do about it. Several people mentioned how the dam would make life in the village more difficult, and that they were not sure what they wanted to do. They had written letters and attended all of the meetings. One elder told us about the promises that EGAT had made to them, and that they wanted to see those promises in writing. He was adamant that the villagers would hold EGAT to their promises, that these promises represented an obligation to the "good people of their village".

A women, who I also introduced in Chapter 5, told us she was worried, that she "had a very heavy heart" (*nak jay*). She explained that she farms the riverbank in order to produce vegetables that her family can sell. She told us that she typically receives around 20,000 baht (approximately 650 CAD) in a given year. This money, she explained, is enough to send her two children to school. As she understands it, even if the dam will not inundate her house, it will flood the river's banks. She asked, "How will I send my children to school? Will EGAT also provide an education for our children? I don't think so, they cannot provide a quality education" (transcript of 1 October 2013 field visit).

Her comments sparked a bit of debate, with some of the researchers wanting to know precisely how she had come up with the 20,000 baht estimate and wanting to know the specific details of vegetable production. As translator, I helped to ask these questions. However, I was more impressed by the convincing narrative that she had relied upon to express her concerns to us, a group of individuals working in fields broadly related to education, and particularly in how her explanation compared with other narratives of dam development. She emphasized that her children deserve an education, and even more than that, that they have a right to education. In addition, she pointed out that she is an income earner. As I discussed in Chapter 8, this topic of trade and economic value is one element that has been left out of many of the narratives about the Karen (for other overlooked elements, see Walker 2001, 2004), about women, and about village agricultural and fishing livelihoods, and it has not been studied and publicized within existing Villager Research initiatives.

As the group discussion concluded, Thomas approached me. A local leader who works at the school, he normally takes a leading role in these kinds of discussions but in this case, he had not spoken. "Wa!" he called me, by my nickname, "I didn't even get a chance to talk!" He was

proud that everyone else had expressed themselves, and I could tell by his beaming expression that he thought his fellow "villagers" had explained the struggles and concerns of the village clearly, and in a way that resonated with both activists and academics from the various countries present at the workshop. "In the past, it was not so easy to speak to strangers like that. Now, it's easy. What's next—should I go visit those folks in China and Burma or not?"

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APPENDIX A: INTERVIEW QUESTIONS

Interview Questions, LOCAL RESIDENTS

Below is a list of draft questions used and modified for informal/in-depth interviews with local residents.

1. How old are you? How many people live in your house?

2. How long have you lived in this village? If you came from somewhere else, please tell me from where and about how you first came to the village?

3. Please tell me about how you normally start your day? What livelihood activities do you spend the most time on each day? Where do you conduct each activity? Can you show me?

4. Regarding the Salween River, can you tell me about your everyday use of the river? (main question, followed by prompting questions)

   -How do you use the river? When? For what purposes?

   -Alternatively, do you use the river for travel? Fishing? Food collection? Worship or ceremonies?

   -Who else uses it? In your opinion, who controls it or makes decision about who can use it?

   -When you come across someone else using it, what do you do? (a friend, someone from neighbouring village, military, scientist, etc)

   -Are there people who want to access the river but are not able to or have restricted uses? Are there times when you cannot use the river? When you choose not to? Are there places along the river you do not go?

   -In your opinion, is use/access/ownership of the river different from land (farmland, rice, etc)? How?

   -How did you come to know this? What ways are the above documented or communicated?

5. Can you tell me about key changes in use of the river since you have lived here? What has stayed the same? What role did you play in these changes, if any?

-When you first came here did you use the river more often, less often or about the same? Do you remember seeing more people, less people or about the same?

-Can focus on individuals activities, identified in question 3; for instance, if they mention riverbank gardening, I can use that to start discussion with interviewee.

6. Are you familiar with the proposed dam on the Salween called Hatgyi? Can you tell me about it?

-Do you think the proposed dam will change your use of the river? In what ways? In what ways do you expect your uses will stay the same?

-What other changes do you expect to experience personally?

-How do you receive information about the dam?

-What kinds of information have you received?

-What studies related to the river or related to the dam are available to you (or have you seen or heard)? Can you tell me your opinion of these studies?

7. I am also interested in ecological knowledge and I heard that the Thai Baan initiative has been ongoing in your village. Can you tell me about Thai Baan?

-Who has the opportunity to participate in Thai Baan within the village? (I am mostly thinking of listening for interviewee identified affiliations, but other considerations would include: women/men, young/old, various other affiliations – own land/no, length of family history in village)
-Who takes the main responsibility for this process (making Thai Baan)?
-Why did you participate (or not)? Did anyone in your family participate?
-Who uses it? Who reads the publications? Have you read any of the publications?
-What does Thai Baan focus on? Why? Why do you think Thai Baan is being carried out now along the Salween?
-Since Thai Baan started, have your ideas about the village changed? (decision-making, etc) About the river? (highlight the importance or stay the same)

8. There is another study of the river and the proposed dam done by EGAT; have you heard about this study?
-If you were to compare the EGAT study with Thai Baan, how are they different? How are

they the same? (prompts: process, accuracy, legitimacy)

9. How else do you express your concerns about the river and the dam developments? Who do you express this to? With what effect?

10. How frequently do you have NGOs visit your village? How frequently do you see or hear of EGAT officials in the area? How often do officials from the district and province visit the village?

Interview Questions, OUTSIDE VLILAGE

Below is a list of draft questions, similar to above, that were used for semi-structured interviews with NGOs and Academics. I modified this for use with officials from local and provincial governments as well as scientists and others who are not physically located at the initial site of research to provide insight into other decision-making processes.

1. What is your position? How long have you been working in this position?

2. Please tell me about the issues you work on and what motivates you to work on these issues?

3. In your view, what is the role/aim of the Salween Dams? Hatgyi project in particular?

4. Are there debates in your organization about river developments? What are they?

5. How often do you visit the villages along the Salween River?

6. How did you receive information about the Nu-Salween dam projects?

7. What kinds of information have you received?

8. What studies or other types of knowledge have you helped produce regarding these issues? What is the focus? Audience?

9. How has this knowledge been used?

10. Have you seen any studies or information related to dam development issues for the Nu-Salween projects? What are they? Have you met with the individuals who produced this information?

11. Have you used or references these in your own work?

12. How are these studies used in decision-making, for both level of policy making or for local authorities?

13. Are you familiar with Thai Baan knowledge initiative at the Nu-Salween?

14. Who take the main responsibility in this process?

15. In your opinion, how is Thai Baan similar or different to other studies of the river? (main question, with prompting questions regarding: process, who produces it, who uses it, accuracy, legitimacy, and how it has changed)

16. What other impressions or comments do you want to share about Thai Baan or other studies (why it matters, critique, etc)?

APPENDIX B: INVENTORY OF INTERVIEWEES

This is not an exhaustive list of interviews but this list does represent the majority of transcribed interviews. I have organized this inventory by geographical location.

Bangkok, Thailand

Pseudonym	Position	Date	Type of Interview[1]	Gender
Eve	NGO Director	22 May 2011	SS	F
Nan	NGO Staff	22 Nov 2010, July 2011	SS	M
Tap	NGO Staff	July 2011	SS	F
Vin	NGO board member	22 May 2011	I	M
Wat	NGO Director	24 May 2011	SS	M
Rapeepan*	Office of the Prime Minister, Chair of Hatgyi Subcommittee	10 January 2011	SS	M
Sunee*	Former Human Rights Commission of Thailand appointee, member of Hatgyi Subcommittee	3 Dec 2010	SS	F
Dr Niran*	HRC-T Director	3 Dec 2010	SS	M
Tawewong*	Professor, Chulalongkorn University, Director, ERI, lead consultant for Hatgyi EIA	May 2011	SS, I	M
Thana	Lead EGAT-I staff; engineer.	20 May 2011	SS, I	M
Dr See	T-MRC representative	May 2011	I	M

[1]Interview types: Semi-structured (SI), Informal/Open-ended (I), Follow-up (FW).

*Real name used by permission.

Chiang Mai City

Pseudonym	Position	Date	Type of Interview	Gender
Chayan*	Professor, Director RCSD, CMU	28 Sept 2010	SS	M
Supaporn*	Professor, Archaeology, CMU	12 Oct 2010	SS	F
Louis	Academic Researcher, Archaeology, CMU	12 Oct 2010	SS	M
Bee	NGO staff (Thai Baan)	22 Jun 2011	SS	M
Tan	NGO Staff (Thai Baan)	12 May 2011, 28 Oct 2010	SS	M
Van	NGO Staff (Thai Baan)	28 Oct 2010	SS	F
Dee	NGO Staff	May 2011	SS	M

Pare	NGO Staff	May 2011	SS	M
Air	NGO Staff	May 2011	SS	M

*Real name used by permission.

Northern Thailand (not including Chiang Mai City or villages along Salween)

Pseudonym	Position	Date	Type of Interview	Gender
Pattana	NGO Staff[#]	30 May 2011	SS	M
Jackie	NGO Staff[#]	30 May 2011	SS	F
Sam	Senior NGO Staff[#]	30 May 2011	SS	M
Pun	NGO Staff[#]	30 May 2011	SS	F
Nai	Former NGO Staff[#]	30 May 2011	SS	M
Pal	NGO Director	30 May 2011	SS	M
Suthep*	Governor of Mae Hong Song	5 Feb 2011	SS	M
Yutana*	Deputy Chief, Sob Moei District town	21 May 2011	SS	M
Former District Chief	Chief, Sob Moei District town term ending 2011	May 2011	SS	M
New District Chief	Chief, Sob Moei District town 2011-	February 2011	SS	M
Dr Toy	Royal Forest department/National Park office visit	1 Jun 2011	SS	M
Jack	Provincial Electric Authority Officer	1 June 2011	SS	M
Ratsami*	Professor of Archaeology, Silapakorn University	6 Nov 2010	SS	F
Tin	Former OBT of Sob Moei village	6 Nov 2010	SS	M

[#]involved with Thai Baan   *Real name used by permission

Village 1: TTF [This is not an exhaustive list]

Pseudonym	Date	Position or occupation in village	Type of Interview	Gender^	Age^	Ethnicity or Religion^
Yat	10 Nov 2010	Former VH assistant	SS	M	46	Karen Christian
Mun	14 Nov 2010	Trader	SS	F		Karen Christian
Prea	Nov 2010	Healer	SS	M	50+	Karen, Animist
Maw	Nov 2010	Retired	SS	M	65	Karen Christian
Yindee	Nov 2010	Retired	SS	F	54	Karen Christian
Mal	Nov 2010	Teacher assistant	SS	F	30	Karen Christian
Roy	Nov 2010	New to village	SS	F	25	Karen Buddhist
Ram	Nov 2010	Fishing	SS	M	31	Karen Buddhist

^if identified

Village 2: SM [This is not an exhaustive list]

Pseudonym	Date	Position or occupation in village	Type of Interview	Gender^	Age^	Ethnicity or Religion^
Sara	Oct 2010	Farmer, my host	SS	F	32	Karen Christian
Ann	Oct 2010	Sister of my host	SS	F	30	Karen Christian
Thomas	Oct 2010	Farmer, Thai Baan leader	SS	M	36	Karen Christian
Arm	Oct 2010	Teacher	SS	F	30	Thai Buddhist
Pak	Oct 2010	Village Leader	SS	F	30s	Karen Christian
Day	Oct 2010	Village Elder, Healer	SS	M	50s	Karen Buddhist-Animist
May	Oct 2010	Mother of host	SS	F	65	Karen Christian

Art	Oct 2010	Village Elder	SS	M	60s or 70s	Karen Christian
Nan	Oct 2010	Farmer	SS	F	25	Karen Christian
OBT	Oct 2010	OBT	SS	M	31	Karen
Sai	Oct 2010	Fisherperson, Thai Baan leader	SS	M	46	Karen
Anna	Oct 2010	Nurse	SS	F	21	Karen
PRS	Oct 2010	Village Security and Peace Keeper (PRS)	SS	M	42	Karen Buddhist
Jai	Oct 2010	Village Security and Peace Keeper (PRS)	SS	M	44	Karen
Pat	Oct 2010	Village Elder	SS	M	62	Karen Christian (converted)
Nit	Oct 2010	Farmer, formerly hired by forestry department	SS	M	58	Thai Buddhist
Mak	Oct 2010	Assistant Village Headman	SS	M	38	Karen
Tak	Dec 2010	Farmer	SS	M	34	Karen Buddhist
Ant	Dec 2010	Housewife	SS	F	33	Karen
Wandii	Dec 2010	Healer	SS	F	46	Karen Buddhist
Wanankan	Dec 2010	Healer	SS	M	40s or 50s	Karen Buddhist
Boon	Dec 2010	Store Owner	SS	M	56	Karen Buddhist
Dark	Dec 2010	Spiritual Leader	SS	M	54	Karen Buddhist-Animist
Dan	Dec 2010	Healer	SS	M	53	Karen Buddhist-Animist
Nat	Dec 2010	Janitor at Clinic	SS	M	33	Karen-Burmese

Teacher	Dec 2010	Teacher	SS	F	30s	Karen
Jolo	Dec 2010	Trader	SS	M	30s	Karen
Thant	Dec 2010	Medic	SS	M	65	Karen
Paw	Dec 2010	Teacher	SS	M	40s	Karen

^if identified