RIGHTS-BASED CONSERVATION, REDD+, AND RELATIONALITY IN EAST KALIMANTAN, INDONESIA

by

WALKER DePUY

(Under the Direction of Julie Velásquez Runk)

ABSTRACT

The increased attention to human rights in conservation practice is arguably a humanistic triumph. Global environmental programs such as Reducing Emissions from Deforestation and Forest Degradation (REDD+) are called to protect local and Indigenous rights, ranging from free, prior, and informed consent (FPIC) to local tenure security. At the same time, there is increasing interest in scaling up such rights-based efforts across conservation programs, leaving open the question: How are conservation policymakers and practitioners protecting those aspects of rights and governance not so easily scaled? This dissertation combines institutional and community ethnography through a multi-sited approach to examine how rights-based conservation is pursued in the Berau Forest Carbon Program, Indonesia's first landscape-scale REDD+ project. Working from the international to village level, this research pays explicit attention to how such efforts are translated across governance levels, spatial extents, and actor groups. In this way, it highlights how REDD+ policy has centered human rights in conservation work and presents a cautionary tale for conservationists by describing the complex ways rights such as FPIC and tenure security are shaped by political economic,

cultural, and historical contexts. Drawing additionally on a mapping project pursued with the community of Long Lamcin, this dissertation argues for the need to center relationships and an expanded sense of sociality in rights-based conservation. Such a relational focus offers lessons for considering the co-production of rights-based agendas and environmental governance regimes, the translation of policy concepts across governance levels and actor groups, and how to more fully respect customary tenure regimes for diverse co-benefits. It also argues for more clearly considering power differences across humans and non-humans in complex conservation landscapes and the relations of respect and care fundamental to maintaining them. I end my dissertation with a reflection on my multimedia counter-mapping project, the representational and ethical challenges faced, and the need to be discerning regarding public versus private data in community research. With rights-based agendas growing in popularity across governance realms, this research investigates how REDD+ social safeguards are translated and enacted on the ground and explores what this means for promoting and protecting local communities' rights.

INDEX WORDS: Conservation, Rights, REDD+, Environmental governance, Indonesia

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by

WALKER DePUY

B.A., Carleton College, 2006

M.S., University of Michigan, 2011

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WALKER DePUY

Major Professor:	Julie Velásquez Runk
Committee:	J. Peter Brosius
	Laura German
	Nathan P. Nibbelink
	Laura Zimmermann
	Pujo Semedi

Electronic Version Approved:

Ron Walcott
Vice Provost for Graduate Education and Dean of the Graduate School
The University of Georgia
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DEDICATION

I dedicate this dissertation to my family, whose love and support has been unwavering throughout this journey.

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CHAPTER 1

INTRODUCTION

In the summer of 2013, I sat in a thatch-roofed, stilted house with community leaders, area households, and a group of researchers from the Center for International Forestry Research staring across the northernmost point of the Mamberamo Raya district of Indonesia's Papua province. I was there working as part of an international team to better understand the enabling conditions, benefits, and challenges of developing forest carbon monitoring systems with forest-dependent communities in Indonesia. Looking out over their black sand beach as the sun set, we had come to this particular community because multiple team members had previously worked with them on collaborative land use planning, and they hoped to discuss working together again.

As the team leaders explained our research goals and plans, however, the community voiced concern. They wanted to understand what "carbon" was and how it relates to their forests and themselves. But more importantly, they wanted to know that we were not working with neighboring oil and gas companies, who decades earlier had channelized their land during prospecting, killing off large areas for fish. They likewise had heard stories of conservation NGOs collecting information and selling it to the government and private companies. Before we continued with our work, the village leadership wanted written assurance that we were not going to sell our findings and profit from their words. This moment demonstrated a community with pride in their

knowledge, distrust of outsider interventions, and a history of engagement with non-state actors that, while extending decades, was brought to bear forcefully that day. As requested, we wrote a document outlining our intentions and our promise to not profit off their knowledge. That next day, we also held a formal presentation and seminar about the relationship between climate change and carbon with male and female village representatives from the area communities with whom we hoped to work.

Three years after this preliminary foray into participatory environmental governance, in the fall of 2016 I sat in a conference room one block from the White House to witness the launch of the World Resources Institute's report, "Climate Benefits, Tenure Costs: The Economic Case for Securing Indigenous Land Rights in the Amazon." I had recently interviewed one of the report's authors, and they suggested I attend the event to better understand their work and how it related to emerging trends in conservation. Surrounded by NGO practitioners from the conservation and human rights worlds, we sat as the reports' authors introduced the research and presented their findings. The report compellingly argues for the role Indigenous land rights can play in advancing equitable, sustainable forest conservation and, in so doing, mitigating climate change.

And yet, as the authors made their case, I found my eyes pulled to the banner text atop the room's presentation screen, which stated in large, capitalized letters WRI's rallying call to "Count it, Change it, Scale it." At the same time my eyes caught their motto, however, my mind went back to the black sand beaches of Mamberamo. That evening in Papua made plain the socially-mediated nature of forested landscapes and the complex role that past encounters, even decades old, can play in defining expectations

and setting precedent for future ones. It spoke to matters of legitimacy, but also more than that: such experiences remind us that conservation practice, including the gaining and granting of community consent, cannot be separated from history, that such efforts are grounded in relationships rather than regulations, pursued not through clinical procedures but instead intimate engagements of trust. As the words "Count it, Change it, Scale it" literally framed that morning's event, the subsequent memory begged the questions: What about the parts and processes of environmental governance not so neatly measured and scaled? How are practitioners grappling with such challenges? And what lessons for protecting community rights might be learned from a deeper investigation into such efforts? In this dissertation, I aim to answer these questions and analyze the growing emphasis on human rights in international conservation, whether the pursuit of community consent or efforts to strengthen local governance capacity and territorial claims.

REDD+ projects offer particularly potent sites for this form of investigation, with their efforts often aimed at multiple goals, from carbon mitigation and biodiversity conservation to community development and rights protection, and working across governance levels and spatial scales. Building on a long history of engagement with conservation programs and environmental governance more broadly (Brosius et al., 1998; Escobar, 1999; Hardin, 2011; Li, 2007; Lowe, 2006; Peluso, 1993; Peluso & Lund, 2011; Vandergeest & Peluso, 2006; Walley, 2004; P. West, 2006), anthropologists have responded accordingly, using multi-sited, comparative, and collaborative ethnographic methods to examine REDD+ both around the world (Howell, 2013; Milne et al., 2019; Velásquez Runk, 2012) and specifically in Indonesia (Hein, 2019; Howell, 2014, 2015;

Howell & Bastiansen, 2015). Indeed, as environmental governance has gone global, ethnography is called to adapt and grapple with the joined worlds of science, policy, practice, and people (M. J. Goldman, 2011; Lave, 2011). From World Bank boardrooms (M. Goldman, 2005) and international conferences (Brosius & Campbell, 2010) to the complex relations among states and NGOs (Ferguson, 2006), corporations (Kirsch, 2014), and communities (Agrawal, 2005), scholars argue we must study not "down" but rather "up, through, and across" in order to gain a more holistic picture of contemporary conservation arenas (Corson et al., 2014, p. 23), "giving attention to the routine and ordinary, the out of sight" (Mosse, 2006, p. 943), and what Anna Tsing calls "zones of awkward engagement, where words mean something different across a divide even as people agree to speak" (2005, p. xi). Following in these scholars' footsteps, for two years from 2016 to 2018, I conducted ethnographic research across nested sites of REDD+ governance related to the Berau Forest Carbon Program of East Kalimantan, Indonesia.

The rise of rights-based conservation

The history of human rights in conservation discourse and practice is fraught. This is arguably seen most clearly in the colonial and post-colonial practices of "fortress" (Brockington, 2002) and "coercive" (Peluso, 1993) conservation and their past records and continuing controversies regarding the displacement, disenfranchisement, and criminalization of local and Indigenous communities (Hulme & Murphree, 2001; Neumann, 1998; Schwartzman et al., 2000; Steinhart, 1987; Warren & Baker, 2019).

This began to change, however, in the 1980s as a rising chorus of Indigenous groups and civil society organizations brought such injustices to international attention

(Agrawal & Gibson, 1999; Brosius, 1997) and the roles of local and Indigenous peoples in shaping and sustainably maintaining landscapes became increasingly recognized (Agrawal, 2007; Fairhead & Leach, 1996; Ostrom et al., 2007). In light of such attention and evidence, the 1990s saw an explosion of community-based natural resource management (CBNRM) and integrated conservation and development projects (ICDPs) (Agrawal & Gibson, 1999; Berkes, 2007; Brosius et al., 1998; Robinson & Redford, 2004).

This inclusive vision for conservation has since expanded to calls for participatory (Chambers, 1994c, 1994b, 1994a), collaborative (Berkes, 2017a; Colfer & Pfund, 2011; Velásquez Runk, 2014), and decolonizing (P. L. T. Smith, 1999; Zanotti et al., 2020) research and practice that emphasize the value of locally-derived, place-based knowledge (Berkes et al., 2000; Lave, 2015) and myriad benefits for efficacy and equity from community participation (Danielsen et al., 2005; Evans & Guariguata, 2008; Thompson et al., 2019, 2020). More fundamentally, however, such calls center the agency and rights of local and marginalized peoples, whether the need for their active consent (Buxton, 2009; Cariño & Colchester, 2010; Colchester & Ferrari, 2007; Hanna & Vanclay, 2013), the recognition and securing of individual and communal land rights (Baragwanath & Bayi, 2020; Garnett et al., 2018; Stevens et al., 2014), or the promotion and establishment of Indigenous managed and co-managed areas (Cundill et al., 2013; Hill, 2011; Ross et al., 2009; Sharma, 2011), such as ICCAs ("territories and areas conserved by Indigenous Peoples and local communities") (*ICCA Consortium*, n.d.; Kothari et al., 2017).

The rise of global governance has been fundamental to sustaining and advancing this trend over the decades, whether the 1989 appeal from the Coordinating Body of Indigenous Organizations of the Amazon Basin (COICA) for greater acknowledgement of their diverse peoples' roles, both historical and contemporary, in conservation or the 1992 IUCN and Earth Summit meetings in Caracas and Rio, which sought to validate the role of Indigenous peoples in protected area management and center participation as a requisite for effective and just resource management practice (Bixler et al., 2015; Chapin, 2004). Looking back, the intersection of human rights discourses and global governance can be traced to the 1948 Universal Declaration of Human Rights (Goodale, 2006a), which advanced the universal "values of justice, equity, equality, dignity, respect, and inclusion" for all people (Chapman, 2009, p. 166). The category of "Indigenous" rights both built on this precedent and complicated it, emphasizing a distinct set of collective rights to cultural distinctiveness and self-determination that has become a rallying cry for First Peoples around the world (B. Dean & Levi, 2003; Niezen, 2003) and been canonized in both the 1989 International Labor Organization (ILO) Convention #169 concerning Indigenous and Tribal Peoples in Independent Countries and the 2007 United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

Out of such international conventions and declarations came the formalization and codification of rights-based ideas and discourses across sectors – from public health (Farmer, 2004) to economic development (Sen, 1999) to conservation practice (Hitchner, 2010) – in what is arguably a humanistic triumph (Campese et al., 2009; Hickey & Mitlin, 2009). While there is no shared definition of what constitutes a rights-based approach, broadly they aim to integrate "rights norms, standards, and principles" into a

particular arena's policy, implementation, and assessments (Campese et al., 2009, p. 8), with rights defined as "norms and entitlements that create constraints and obligations in interactions between people or institutions" (Campese et al., 2009, p. 2). Such rights-based agendas and protocols today span multi-lateral organizations like FAO (Colchester & Chao, 2014; Food and Agriculture Organization of the United Nations, 2012) and the World Bank (World Bank, 2013); research organizations like the World Resources Institute (Daviet & Larsen, 2012); and myriad conservation NGOs (CIHR, 2014; Wongbusarakum et al., 2014).

One example of a conservation policy shaped in substantive ways by rights-based discourses is REDD+. First proposed at the United Nations Framework Convention on Climate Change (UNFCCC) in 2005, REDD+ stands for Reducing Emissions from Deforestation and Forest Degradation and has been called the "strategic linkage" between international forest and climate policy (Mulyani & Jepson, 2013, p. 261)[1]. With tropical forests holding up to 17% of global carbon emissions (Baccini et al., 2012), REDD+ currently holds the financial attention of the international community, with over 40 countries and 200 projects set to reshape landscapes across the world (Jagger et al., 2014; Kamelarczyk & Smith-Hall, 2014).

While REDD+ aims to unite climate change, conservation, and development agendas, it has faced sustained criticism regarding its potential to commodify (Corbera, 2012; Gupta et al., 2012) and "carbonize" (Rice, 2010) global forest governance, as well

[1] First captured under the acronym RED (Reducing Emissions from Deforestation) at the 2005 UNFCCC Conference of the Parties (COP), the policy expanded in 2007 to include reducing emissions from forest degradation (REDD), and in 2009 (later reaffirmed in 2010) it expanded again to include emissions mitigated through forest conservation, sustainable management, and carbon stock enhancement (REDD+) (Olander et al., 2012).

as organized acts of resistance by Indigenous communities (Howell, 2014; Johnstone, 2010; Velásquez Runk, 2012). Early research on REDD+ notably critiqued projects' lack of attention to issues of community engagement, local knowledge, equitable benefit sharing, and lessons from past participatory conservation efforts, including the need to grapple with local land tenure systems in contrast to state-based legal regimes (Benjaminsen, 2014; Howell, 2013, 2014; Leggett & Lovell, 2012). In response to this, in 2010 the UNFCCC ratified the Cancun Agreements and established seven social and environmental safeguards to elevate the values of biodiversity conservation and social justice in REDD+ practice (Aicher, 2014; Arhin, 2014; Krause & Nielsen, 2014; McDermott et al., 2012; Savaresi, 2013).

What is covered in the "social" aspects of REDD+ safeguards is itself contested but a common interpretation covers three primary facets, with the second section of the Agreements' Appendix I reading that when "undertaking" REDD+ activities, "the following safeguards should be promoted and supported: […]

> b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
> c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;
> d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of this decision;" (UNFCCC, 2010)

While scholars note that the language offered by the UNFCCC includes little in the way of nuance or specific delineations of rights (Arhin, 2014; Hein, 2019; McDermott et al., 2012; Savaresi, 2013), their broad emphasis on forest governance, respect for local and Indigenous knowledge and rights, and stakeholder participation has both positioned rights

at the discursive center of the REDD+ debate (Howell, 2014) and in practice helped set international norms of conduct around issues of free, prior, and informed consent (FPIC), community participation, and tenure security in conservation practice (Agrawal & Angelsen, 2009; Blom et al., 2010). As safeguards have been developed and implemented in intervening years, however, initial reviews show mixed results. While there is evidence of important uptake of free, prior, and informed consent (FPIC) practices and targeted attention to advancing community tenure rights (Lawlor et al., 2013), there are also conflicting degrees of financial or material benefits for local populations (Lawlor et al., 2013; Milne et al., 2019) and questions regarding safeguards' efficacy in light of continuing forest clearance, community tension, tenurial conflict, and countervailing political economic incentives (Milne et al., 2019).

One widely-identified source of conflict is translational: that social safeguards can "appear to mean different things to different groups in different contexts" (Arhin, 2014, p. 25). Grappling with these translational frictions (Tsing, 2005) across actor groups, governance levels, languages, and cultures illuminates the social and relational nature of rights (Craft et al., 2018; Goodale & Merry, 2007). It also raises questions about the potential limitations for protecting and promoting rights as such approaches are mainstreamed, standardized, and commodified (Baker et al., 2013; Campese et al., 2009; Hickey & Mitlin, 2009; Koskenniemi, 2010). From the cooptation of participatory and inclusive discourses (Cooke & Kothari, 2001; Gibson & Marks, 1995; Igoe et al., 2010; Scheba, 2015) to the legitimatizing and reinforcing of state power (Tuck & Yang, 2012) to the implicit elevating of humans over other life forms and rights-holders (Craft et al., 2018), rights-based mechanisms are also recognized to be fundamentally political, shaped

by governance regimes and themselves tools of governance. With this in mind, scholars have called for REDD+ social safeguards – their design, implementation, and reception – to be accordingly interrogated (Arhin, 2014; Howell, 2014, 2015; Krause & Nielsen, 2014; McDermott et al., 2012; Milne et al., 2019).

In this dissertation, I bring political ecology, science and technology studies (STS), Indigenous, and ontological scholarships together to argue for the importance of relationality in understanding the translation of social safeguards specifically, and rights-based instruments more broadly, across environmental governance actors, levels, and scales. Ultimately, I hope this work provides findings beneficial for both conservation practitioners and local communities striving to protect and promote a spectrum of local and Indigenous rights.

Theoretical framework

The field of political ecology emerged in the 1970s with the central insight that political questions of resource access and control ultimately shape environmental conditions (Blaikie & Brookfield, 2015), and that, because of this, so-called environmental problems are ultimately "*social* in origin and definition" (M. Watts, 2003, p. 259; emphasis in original). In the 1990s, the field expanded its focus to highlight the interconnected relationship between knowledge and power and how this in turn shapes environmental categories, narratives, goals, and outcomes (Brosius, 1999a; Escobar, 1999; Fairhead & Leach, 1995). In this way, critical political ecology emphasizes the roles that both structural and individual power imbalances play in shaping people's lives

and landscapes. It also crucially asks whose knowledge is employed, or dismissed, when writing policy, designing interventionist projects, and making governance decisions.

Political ecology today focuses not just on new frontiers of resource access (Ribot & Peluso, 2003) and land control (Peluso & Lund, 2011), but it increasingly tackles the global, multi-scalar nature of environmental governance, from the machinations of multi-lateral organizations (M. Goldman, 2005) to the pulsing coordinations of NGOs at global conferences (Campbell et al., 2014). Such work attends to novel forms of power, while tracing the construction and flow of truth claims within them, each essential components of understanding and advancing more effective and equitable forms of conservation.

These efforts have been complemented and bolstered in crucial ways by the field of science and technology studies (STS). STS examines how scientific and technological artifacts are socially produced and their corresponding effects in the world (Jasanoff, 2012; Knorr Cetina, 1995; Knorr Cetina & Mulkay, 1983). Concepts like black boxes (Callon & Latour, 1981), boundary objects (Star & Griesemer, 1989), scientific bandwagons (Fujimura, 1988), and standardized packages (Fujimura, 1992; Lave, 2011) help describe how discourse and practice work together to contingently produce stable "truths," as well as just how fluid and fungible "facts" can be. Crucially, this work emphasizes that "practices of science, and those of bureaucracy, policy, and management, are often coproduced" (Leach, 2008, p. 1785) and firmly positions science and scientists as actors in society, "where the stakes are never about knowledge alone, where values and cultural practices matter, and where power reigns through far ruder means than the accumulation of textual allies and citations" (Jasanoff, 2012, p. 439). Together such insights have contributed substantially to our understanding of conservation landscapes,

illuminating material and discursive networks that undergird their environmental governance.

Bringing political ecology and STS together thus illuminates not only the social construction of science but the political work that it does in the world (M. J. Goldman et al., 2011). This includes how scientific expertise shapes conservation and development planning (M. J. Goldman, 2007; Lowe, 2006; Mitchell, 2002), the ways particular conservation science concepts like wildlife corridors or stream restoration are defined and deployed in policy and practice (M. J. Goldman, 2011; Lave, 2011), and how people's conduct can be shaped and places' composition and meaning altered intentionally and unintentionally through conservation science and policy (Li, 2007). Their union facilitates answering the question of "how the application of scientific knowledge leads to the construction of certain kinds of nature (at the expense of others)" (M. J. Goldman et al., 2011, p. 131), ultimately arguing for an "*ethnography of government*" that takes seriously the "witches' brew" of social practices that co-produce a place (Li, 2007, p. 282).

Recently, however, integrative environmental science has been called to focus not simply on the politics of knowledge but the wider politics of ontology. This shift focuses attention on the relationship between what exists in the world and how then that world is known (Rival, 2012), as well as how "assumptions regarding the nature of categories of being in the world shape human action in the world, and thus have ethical, including ecoethical, effects" (Sullivan, 2017, p. 225). By expanding the gamut of social actors to include those human and non-human, material and immaterial, living and non-living, this work then both broadens understandings of world-making processes (Blaser, 2014; Coole

& Frost, 2010; de Castro, 1998; De la Cadena, 2015; Holbraad & Pedersen, 2017; Kohn, 2013; Latour, 2013; Mol, 2003; Povinelli, 2016; Velásquez Runk et al., 2019) and highlights the political stakes as not only "about whose knowledge is allowed to count as legitimate knowledge…but also about whose reality is allowed to be real" (Burman, 2017, p. 925). Indigenous scholars point to a long history of subaltern and Indigenous thought affirming both the coexistence of multiple worlds and the ways coloniality past and present continues to structure peoples' lived realities (Hunt, 2014; Sundberg, 2014; Todd, 2016; Tuck & Yang, 2012). They emphasize not only the politics inherent in maneuvering across commensurable and incommensurable ontologies – whether found in cultural norms, languages, or legal regimes – but the discursive and material consequences of such ontological conflicts and erasures as well.

Looking specifically to REDD+ projects, scholars note dangers to success for projects pursued in Indigenous territories that "fail to connect with the realities of Indigenous resource management and political decision-making" (Shankland & Hasenclever, 2011, p. 86). This includes a failure to recognize fundamental differences in conceptions of property between settler and Indigenous communities (Birrell et al., 2012; Felker et al., 2017), as seen across Borneo when looking at different scales of resource tenure, such as the distinction between forest, garden, and individual tree tenure (Peluso, 2003; Tsing, 2003), as well as methods of claims-making, whether the laborious act of planting trees or the practices of oral narrative and song to maintain your claim to them (Brenneis, 2003; Peluso, 2003; Tsing, 2003). This potentially could affect not only the design and implementation of benefit-sharing mechanisms and policy incentives but

more fundamentally could prove counter-productive to the safeguarding of rights and instead further territorial dispossession (Birrell et al., 2012).

Responding to such concerns, Indigenous scholarship emphasizes the need for attention to conviviality and relations of care (Ismare Peña et al., 2021; V. Watts, 2013; Wildcat, 2014), and this emphasis on relationality is increasingly in human-environment research as well. Lejano (2019) writes of the need to center relationality in studies of sustainability and social-ecological systems. Relationality in his words:

> seeks to understand a system not so much as a set of interacting objects but a web of relationships. By foregrounding relationships, we are better able to understand the rich ground of practice that guides a system in ways that the formal rational designs do not explain. (2019, p. 1)

The Anishnaabe and Haudenosaunee scholar Vanessa Watts (2013) provides alternative language to illustrate this point, drawing on the idea of "Place-Thought" and the expansive circle of beings with whom people share spirit, agency, and relations. "Place-Thought," she notes:

> is the non-distinctive space where place and thought were never separated because they never could or can be separated. Place-Thought is based upon the premise that land is alive and thinking and that humans and non-humans derive agency through the extensions of these thoughts. (2013, p. 21)

Building on this, she asks:

> Could Place-Thought be the network in which humans and non-humans relate, translate and articulate their agency? If I, as a human, am made of the stuff of soil and spirit, do I not extend to the non-human world beyond causal interactions? And what of these non-human – non-human relationships that demarcate various roles and responsibilities of human beings? (2013, p. 27)

"Our ability," she writes, "to have sophisticated governance systems is directly related to not only the animals' ability to communicate with us, but their *willingness* to communicate with us" (2013, p. 30; emphasis in original). Bringing together these

insights and lessons from Indigenous, ontological, STS, and political ecology scholarship points to a need for wider attention to what Wilson (2006, p. 78) calls "the social life of rights" – to connect conversations about rights to conversations about relationships – and to recognize ultimately that "to study what human rights do is also to study what human right[s] are" (Goodale, 2006a, p. 4).

Research context

With the world's highest rate of deforestation and fourth-largest forest carbon stock, Indonesia is a focal region for both global forest conservation and climate change mitigation (Margono et al., 2014; Mulyani & Jepson, 2013). To address its contribution to global emissions, Indonesia has been at the forefront of REDD+ policy adoption, with its Ministry of Forestry outlining REDD+ emissions baselines, monitoring strategies, and benefit sharing mechanisms before the 2007 UNFCCC Conference of the Parties (COP) (Hein, 2019). Since then, in 2009, the national government committed to reduce greenhouse gas emissions by 26-40% by 2020 (since extended to 2030) (Z. R. Anderson et al., 2016; Harada et al., 2015; Hein, 2019; Setyowati, 2020). In 2010, it signed a $1 billion agreement with Norway (since rescinded by Indonesia in 2021) to establish a national REDD+ infrastructure and in 2013 became the first country to institute a national-level REDD+ agency (though that was subsequently disbanded and absorbed into a newly-merged Ministry of Environment and Forestry in 2015) (Z. R. Anderson et al., 2016; Harada et al., 2015; Hein, 2019; Jong, 2021; Setyowati, 2020).

In many ways, REDD+ has reshaped forest governance in Indonesia, with Indonesia receiving hundreds of millions of dollars from public and private donors to

establish dozens of REDD+ demonstration projects – the most anywhere in the world – that span sub-national, national, bilateral, multilateral, transnational, and private enterprises and operate at both project and jurisdictional scales (Bae et al., 2014; Hein, 2019). The reshaping of forest governance, explored in more detail in Chapter 2, includes the establishment at the 2007 COP of new forest management units (Bae et al., 2014), considered a fundamental piece of Indonesia's national REDD+ strategy (GIZ, 2015; Ministry of Forestry, 2013), as well as Indonesia's REDD+ Taskforce creating in 2011 the One Map Initiative to spatially formalize and synchronize land tenure at the national scale (Hein, 2019). All of this together led to the development of Indonesia's national Green Growth Program in 2013, with REDD+ a central pillar in its strategy to jointly mitigate greenhouse emissions and advance economic development (Z. R. Anderson et al., 2016; Astuti & McGregor, 2015; Hein, 2019).

Indonesia's adoption of REDD+ policy is also credited with creating new space for rights-based policies. In particular the Indigenous rights organization, AMAN (*Aliansi Masyarakat Adat Nusantara*), has been a crucial actor in lobbying for the inclusion of FPIC and an emphasis on land tenure reform for local and Indigenous communities in the safeguards outlined in Indonesia's national REDD+ strategy (Hein, 2019). This aligns with Signe Howell's observation that such vocal efforts by community and civil society groups have in many ways globally shifted REDD+'s "focus from the conservation of tropical forests to the rights of the people who live in them" (Howell, 2014, p. 256).

In Indonesia, the rise of REDD+ has led to the development of multiple national safeguards frameworks, including the Ministry of Forestry's Safeguards Information

System (SIS) and the National REDD+ Agency's safeguards system known as PRISAI (*Prinsip, Kriteria, Indikator, Safeguard, Indonesia*). Meanwhile, non-state actors like multilateral partnerships and civil society groups pursue separate safeguards frameworks meant to eventually synchronize with the national systems. One example explicitly designed for sub-national use is the REDD+ Social and Environmental Standards (SES) (REDD+ SES, 2012) , currently adapted for both Central and East Kalimantan provinces (Degawan et al., 2015; McDermott et al., 2012). In particular, REDD+ SES is thought to have an especially strong "rights-based" focus, focusing not only on the three "social" safeguards identified above concerning transparent forest governance, respect for local and Indigenous knowledge and rights, and stakeholder participation but also the need for consistency with international agreements, the addition and enhancement of social benefits, and equity (McDermott et al., 2012, p. 66).

At the same time, the Indonesian state has had a complicated relationship with REDD+. This has been seen visibly, as mentioned earlier, in the alternating creation and shuttering of the National REDD+ Agency, as well as the signing to great fanfare of a REDD+ Readiness agreement with Norway and its termination over a decade later. This tense relationship is perhaps best encapsulated in Indonesia's previously mentioned Green Growth program, whose simultaneous goals of climate change mitigation and robust economic growth on the one hand find form in calls for a "smart," "green," and "sustainable" new national capital in East Kalimantan (BAPPENAS, 2020; Kementerian PPN/BAPPENAS, 2020) and an ongoing push for infrastructure and road development in Indonesian Borneo on the other (Alamgir et al., 2017, 2019; Laurance et al., 2015). Most recently, Indonesia's Minister of Environment at the 2021 COP26 stated that: "The

massive development of President Jokowi's era must not stop in the name of carbon emissions or in the name of deforestation" (Ungku & Widianto, 2021). While troubling for many groups invested in global solutions to climate change, it also presented a refreshing clarity regarding the fraught "paradox" at the heart of Indonesia's shared climate change mitigation and development agendas (Z. R. Anderson et al., 2016, p. 38).

Research sites

These myriad, at times conflicting, trends regarding REDD+ – as a shaper of forest governance, an enabler of rights-based agendas, and a politically-uncertain entity – are all present in East Kalimantan's Berau Forest Carbon Program (BFCP). Established in 2009, the BFCP is a joint venture by the international conservation NGO, The Nature Conservancy (TNC), and the Berau district government, spanning Berau's entire 2.2 million hectares and 180,000 citizens (Permana, 2012; Wongbusarakum et al., 2014). Implemented across Berau's entire jurisdiction, the BFCP has been called "the first REDD+ activity in Indonesia designed at the landscape scale" (Venter et al., 2013, p. 117), with TNC framing it within their larger effort to promote and maintain "sustainable landscapes" (Wongbusarakum et al., 2014, p. 2). Such "sustainable landscapes" projects, they argue, must:

> conserve critical ecosystems, align with existing development plans, contribute to economic opportunities, address the large-scale drivers of habitat loss and improve the well-being of people who feel the day-to-day impacts of any land-use program. (Wongbusarakum et al., 2014, p. 2)

Bringing TNC together with district and provincial governments, national forestry and planning departments, private companies, international funders, and local NGOs, the

BFCP originally was designed to receive funding from donors and international agreements, as well as future market mechanisms (Hovani et al., 2018). With climate-based finance not yet materializing, today it is primarily funded through a Tropical Forest Conservation Act (TFCA) debt-for-nature swap (Sheikh, 2018) and structured around "several 'no-regrets' approaches to improving natural resource management, in line with local interests and goals" (Hovani et al., 2018, p. 10). This involves combining "corporate engagement with logging concessions, protected area conservation, development of REDD institutional frameworks, and community-based natural resource management" (Thaler & Anandi, 2017, p. 1070).

Central to this strategy has been an emphasis on spatial planning and coordinating across governmental and non-governmental stakeholders. In addition to supporting forest policy development and implementation across governance scales, TNC has actively sought to influence corporate behavior and promote sustainable forest management through voluntary Forest Stewardship Council (FSC) certifications and developing a Reduced Impact Logging for Carbon (RIL-C) methodology for company adoption. To date, however, corporate actors have been reticent to engage, especially as FSC certification and RIL-C have not improved the price of timber and economics of logging (Hovani et al., 2018; Thaler, 2017). Reviewing satellite data, TNC notes that despite its efforts deforestation rates still "appear to be increasing modestly in Berau" (Hovani et al., 2018, p. 32).

At the same time, TNC has pursued spatial planning and stakeholder coordination at the community scale as well, developing in 2012 a community engagement approach called SIGAP (*Aksi Inspiratif Warga untuk Perubahan*, or "Communities Inspiring

Action for Change"). Beginning with two model villages, SIGAP was eventually replicated across 24 more to be a tool of community empowerment and a facilitator of green development (Hovani et al., 2018), with explicit emphases on improving village governance, natural resource management, alternative livelihoods development, and formal tenure security. It was also designed to align with REDD+ social safeguards, and in particular REDD+ SES guidelines (Hartanto et al., 2014), with TNC's provincial-level safeguard specialist calling SIGAP "one of the most complete safeguard approaches" for community REDD+ work. Similarly, one international TNC practitioner explained that SIGAP is "how you get really practical, in terms of implementing rights-based approaches on the ground." In 2017, however, TNC expanded SIGAP's purpose away from solely REDD+ to wider district-scale village development planning, adapting it as a social media application. Today SIGAP is being implemented across all roughly 100 villages in Berau.

In the end, this dissertation aims to ethnographically study the idea of rights-based conservation, how it manifests within the Berau Forest Carbon Program, and what it means when the goal of empowering communities and safeguarding their rights is pursued in service of a jurisdictional REDD+ and wider green development agenda. This required explicitly multi-sited and multi-level ethnographic research (Corson et al., 2014; Marcus, 1995) that both followed rights-based concepts from international to local governance levels (Ferguson, 1994; M. Goldman, 2005; Nader, 1972; Tsing, 2005), as well as focused on their implementation in a single place and REDD+ project (Li, 2007; Lowe, 2006; Walley, 2004; P. West, 2006).

Given both the diversity of actor groups and the clear centrality of local communities to the BFCP as described above, I conducted research across multiple governance levels and research sites, from government, civil society, and university offices in Washington, D.C., Jakarta, Yogyakarta, East Kalimantan's capital of Samarinda, and the Berau district capital of Tanjung Redeb to a range of local communities and surrounding forests around Berau. To understand how rights-based efforts like SIGAP were engaging, and being engaged by, local communities, the majority of my research time at the sub-national level was spent with the Punan Kelay communities of Berau's upper Kelay watershed, known as the Hulu Kelay, and in particular Long Lamcin, a designated REDD+ demonstration village where conservation practitioners from three separate organizations were working to promote conservation and community development. Maps of my primary research sites are shown below in Figures 1 and 2.

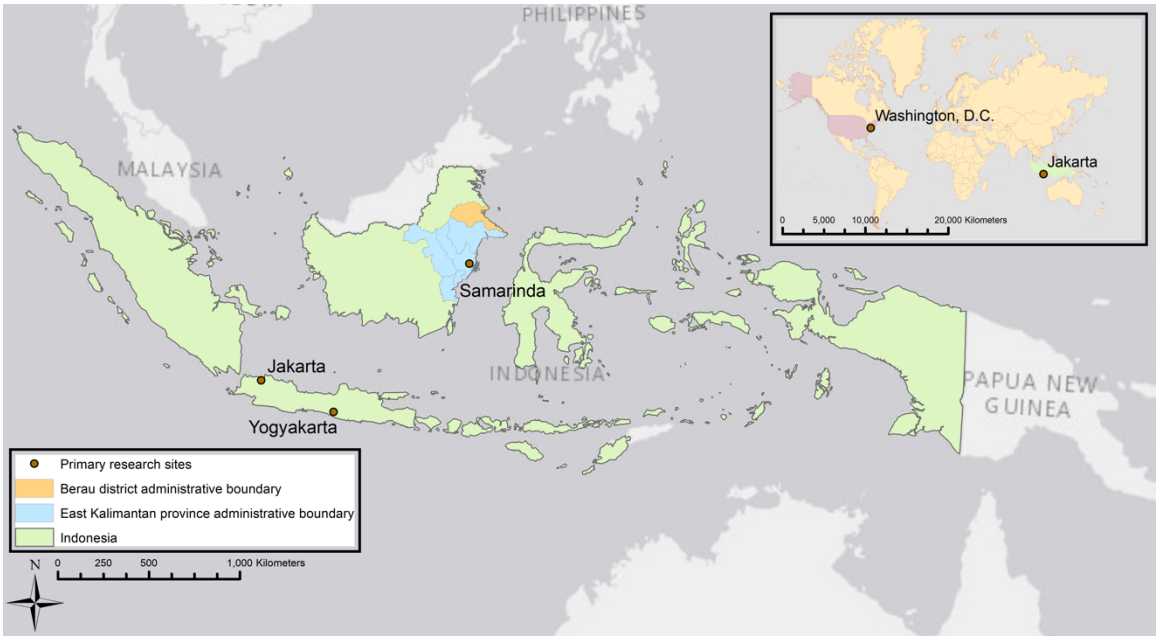

Figure 1. International- to provincial-level primary research sites (Map made by R.R. Unks and W. DePuy. Data from KPH Berau Barat, Patriot Negeri, Badan Pusat Statistik, OpenStreetMap, hub.arcgis.com, naturalearthdata.com, Esri HERE)

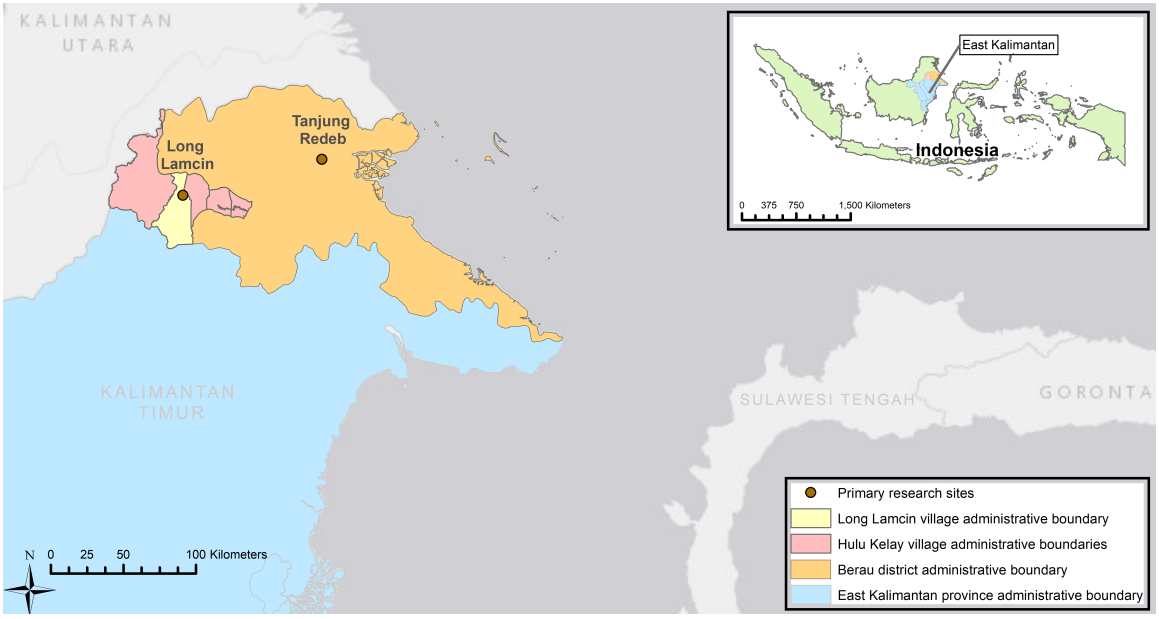

Figure 2. District- to village-level primary research sites (Map made by R.R. Unks and W. DePuy. Data from KPH Berau Barat, Patriot Negeri, Badan Pusat Statistik, OpenStreetMap, hub.arcgis.com, naturalearthdata.com, Esri HERE)

Research methods

To structure my research, I conducted it in phases between summer 2015 and summer 2019. Over the course of this work, I used English and Indonesian as appropriate. I began from summer 2015 to summer 2016 with a series of formal and informal interviews with scientists and practitioners across conservation organizations in the United States and Indonesia to narrow my research topic and establish valuable contacts and relationships. This notably included one month (June 2016) of preliminary research in DC and another (July 2016) in the greater Jakarta area to organize and confirm my research plan. After this, my primary research period lasted for 24 months from August 2016 to July 2018. During that time, I pursued a multi-sited and multi-level approach that employed both institutional and community ethnographic methods.

My institutional ethnography spanned international to village governance levels. Beginning in summer 2016, I spent five months in the Washington, D.C., area, followed by three months in Yogyakarta, a one month scoping visit to Samarinda and Berau, three months around the greater Jakarta area, and a final 12 months in East Kalimantan, with the majority of my time in the Hulu Kelay and Long Lamcin, though periodic trips were made to surrounding villages and the capital cities of Tanjung Redeb and Samarinda.

From the international to village level, I conducted participant-observation of the daily work and life of conservation and development professionals, focusing in particular on activities related to rights-based conservation and REDD+ safeguards, as well as more specifically the BFCP. This included attending report launches, conferences, workshops, and meetings; joining field-based work activities, whether a rehabilitated orangutan release or a reforestation plotting; and enjoying informal get-togethers, from late night

chats to fishing trips (Corson et al., 2014; Nader, 1972). Through this work, I interviewed a total of 91 state and non-state scholars, scientists, and practitioners (Bernard, 2017). These semi-structured interviews variously focused on three broad areas: 1) the rationale and implementation of REDD+ social safeguards and related rights-based concepts, 2) the history, goals, and progress of the Berau Forest Carbon Program; and 3) participants' life and work histories. Because knowledge regarding REDD+ and the BFCP is specialized, I used a snowball sampling method to identify relevant actors to interview (Bernard & Bernard, 2013).

While in Berau from summer 2017 to summer 2018, I also conducted community ethnography in the upper Kelay river system, a focal region for area conservation and development efforts since the early 2000s, and in particular with the Punan Kelay community of Long Lamcin. In particular, I conducted participant-observation of daily life and village-based BFCP activities (Lowe, 2006; P. West, 2006). This meant contributing to the full agricultural cycle of swidden rice cultivation, attending church services, and celebrating holidays, as well as joining community forest patrols, agroforest mapping activities, and myriad governance planning meetings. Through this work, I interviewed a total of 74 community members, elders, and leaders, with these semi-structured interviews broadly focused on 1) life and work histories, 2) perceptions of past and present NGO and concessionary actors, including current BFCP activities, and 3) community livelihoods, governance systems, and landscape histories (Bernard, 2017). Due to the specialized information sought, I also used a snowball sampling method to identify relevant actors to interview, whether those involved, or equally importantly not

involved, with conservation programs or village governance, as well as those possessing specific historical, cultural, and environmental knowledge.

Contributing something of cultural and material value to the Long Lamcin community was a driving goal throughout my research. This meant a concerted effort to understand and examine the cultural history of Long Lamcin and the Hulu Kelay. During this time, however, I also co-developed a research project – through focus group discussions with community elders, expert interviews with customary leaders, and field visits with trained community members and knowledgeable elders – to map one of their ancestral river areas (Ngui Lamcin) and its surrounding spirit landmarks (*keramat*) and human burial sites (*kuburan*). Participatory mapping has a long history in anthropology and human-environment research more broadly (Chapin & Threlkeld, 2001; Gilmore & Young, 2012; Robbins, 2003), only becoming more popular with advances in geospatial and visualizing technologies (P. Sercombe, 2020; Turner & Taylor, 2003), including for counter-hegemonic ends (Radjawali et al., 2017). Building on this history and work, we used GPS, GoPros, and digital cameras to multi-modally document 37 burial sites, 13 spirit landmarks, and 59 river branches along Ngui Lamcin. This work has resulted in a digital and planned hard copy cultural landscape booklet for community use (and not for publication) that we hope can help both preserve cultural knowledge for future generations and contribute to a living body of evidence to promote tenure security against encroachment.

My final research phase was conducted in summer 2019 when I returned to Indonesia to visit research participants and friends in Jakarta, Berau, and South Sulawesi,

including a week in Long Lamcin to see people, update our participatory mapping data, and present my preliminary findings and outputs to the community.

Throughout these research phases, I wrote informal “scratch” notes as I went about my day, whether on small notepads or my phone’s “Notes” app, as well as recorded on a daily, or near-daily, basis more formal documentation and reflections on participant-observation and interview activities in typed fieldnotes (Sanjek, 1990). I also prioritized collecting policy and practitioner materials, whether formal reports, informational leaflets, PowerPoint presentations, or community-oriented posters and publications, across actor groups, research sites, and governance levels. These documents were selectively analyzed for content and discourse as appropriate. To analyze my semi-structured interviews and fieldnotes, I used the qualitative analysis software MaxQDA to thematically code and conduct textual analysis of my typed interview transcripts and fieldnotes in their original languages. This enabled me to search for thematic similarities and differences across research materials while retaining fidelity to important cultural meaning, conversational context, and linguistic diversity.

Ultimately, my time in Berau and the Hulu Kelay made clear the importance of understanding its historical and contemporary political economic context to appropriately reflect on the translation and contestation of rights and rights-based conservation there. As Krystof Obidzinski (2003, p. 21) has observed, the governance history of Berau is largely a story of patron-client relations and "clientelist coalitions," whose structure and dominance across East Kalimantan “has persisted through time” even as the assemblage of participating actors has changed. With this in mind, before concluding with an

overview of my dissertation's organization, I will present a brief cultural and clientelist history the Hulu Kelay, focusing in particular on Long Lamcin.

A cultural and clientelist history of the Hulu Kelay

Introduction to the Hulu Kelay

Long Lamcin is a Dayak Punan village of 29 households and roughly 130 individuals located along Berau's upper Kelay river system. Commonly known as the Hulu Kelay (*hulu* meaning "upriver"), Lamcin shares this river stretch with five other communities, who see themselves as an extended family with a common history. Referred to by scholars as Punan Kelay, they refer to themselves as Mapnan[2]. Throughout my work, I will use these terms interchangeably. Starting farthest downriver with Long Duhung, the communities continue upriver to Long Boi, Long Pelay, and Long Lamcin, before ending with Long Kian[3] and Long Suluy. Each village is named after its nearest river, with their names changing over time as communities have migrated, whether due to disease, conflict, offers of governmental support, or otherwise.

Rivers play essential roles in Bornean cultures, whether as "axes of settlement" or "axes of communication" (Rousseau, 1990, p. 103). And for Punan (or Penan as they are known in Malaysia) throughout Borneo they likewise act as wells and buttresses of ecological knowledge and social memory (Brosius, 1992). This is no different for Berau's Punan Kelay communities, whose histories are communicated in the way they interchange past and present village names when relaying information, whether referring

[2] For more information on the ethnohistorical debates surrounding Punan Kelay/Mapnan, see Appendix A.
[3] While technically a "sister" village of Long Suluy, Long Kian split off and relocated downriver from Long Suluy in the late 1970s after an internal dispute (Holmsen, 2006).

to Long Pelay as Long Lamjan, Long Boi as Long Keluh, or Long Gie as Long Beliu. This fluidity of place and name speaks to the shared history and mobility of these communities and their collective ethnic claim to be a single "family" – with such filial language voiced across these communities during my research and found to be true for Holmsen (2006, pp. 144–145) as well.

Long Suluy is universally recognized as the founding community of the Punan Kelay, being the farthest upriver, the first settled, and possessing by far the largest population (Guerreiro, 1985; Holmsen, 2006)[4]. Notably, a small group of families from Long Duhung resettled between 1979-1980 to the downriver village of Long Gie (Guerreiro, 1985), which was created as part of a national social program for "isolated" hunter-gatherer communities[5] and today comprises a mixture of Punan Kelay, Kenyah, and Malay groups (Holmsen, 2006). While Long Gie Punan residents' shared lineage is recognized through their invitations to inter-community celebrations like Christmas and Easter, conversations with Long Lamcin community members about who was included in the category of Punan Kelay just as often did not mention them, stopping instead at Long Duhung[6]. This cultural difference perhaps stood out the most to me after hearing people complain when Long Gie members arrived late to Christmas service, arguably illustrating how physical and social distance can co-exist and reinforce each other.

The question of who is included in the ethnic category of Mapnan is important due to the existence of widely shared tenurial rights across recognized groups to hunt,

[4] Holmsen (2006) documents an ethnic division occasionally drawn between Punan Kelay and Punan Suluy, although both groups often dissolve such distinctions and share origin stories.
[5] *Pembinaan Kesejahteraan Masyarakat Terasing* (PKMT), or "Improvement of the Welfare of Isolated Communities" (Obidzinski, 2003).
[6] Holmsen (2006) witnessed a similar inconsistency of inclusion for Long Gie Punan during her fieldwork with villagers in Long Suluy.

fish, and collect fruit and honey throughout both their own and each other's territory. Such a mobile livelihood system was, and is, dependent on expansive territorial ranges, a keen observation of environmental change, and ultimately successful successive seasonal masting, which brings a multitude of fruit, pollination, honey, and well-fed wildlife to be sought and collected by Punan. One friend from Lamcin explains:

> We are upriver people [*orang hulu*], specifically the Mapnan people. Just recently did we gather together to become one village in this group of villages. Before that, before there was our governance, we as a people were scattered in the forest there, like I explained yesterday…during fruit season, wherever there was fruit, there would be people…wherever there was honey, there we went.

As he notes, while boundaries between communities now exist – especially as villages have settled and their territories documented by state and non-state actors – a shared familial bond and common understanding of tenurial porosity endures across the communities. A Lamcin community leader makes this plain: "…for us in Hulu Kelay, it may be said that we are again one *rumpun*[7]. Like a plant, one *rumpun*, one tree. So we…do not divide the territory. In general, from Long Gie to the headwaters, this is all our territory." Discussing this, the customary leader of Long Kian makes a similar point:

> That is the meaning of "we are the same." If Long Kian wants to collect honey in Lamcin, they may, [if they] want to look for food in nature they may. There is no restriction. It is the same also with Lamcin in Long Kian. There are no restrictions, it's the same. The same means "siblings." There aren't restrictions; it is the same.

The adoption of swidden agriculture

These Punan Kelay communities' livelihood systems, however, shifted in an important way in the 1970s as swidden agriculture was widely adopted. This transition

[7] *Rumpun* refers to a type of plant that appears comprised of multiple individuals, such as bamboo or rice, that in actuality share a common root system. It is commonly used as a metaphor in Indonesia to describe shared filial relations between groups of people (Clark & Pietsch, 2014).

follows a similar pattern to the stories of many other mobile and semi-mobile peoples, including Punan/Penan, in which agriculture is promoted by colonial and national governments as a technology of assumed prosperity, sedentarism, and control (Peluso & Vandergeest, 2001; Sellato, 1994, 2002). By the early 1970s, downriver extension agents, primarily Dayak Kenyah, started visiting these communities, and by the mid-1980s all except Long Suluy – who being the farther upriver was able to resist until the 1990s – had adopted dry rice agriculture known as swidden (Holmsen, 2006). A Lamcin leader confirms that Kenyah introduced swidden to Lamcin, positing it happened between 1971-73[8].

With its adoption, swidden cultivation created a new tenurial system and relationship, with fields claimed by households through clearing. Today, swidden is an organizing livelihood for these communities, with households' fields averaging 1-2 hectares and the cycle of clearing, burning, planting, and harvesting occurring annually and directing a substantial allocation of labor across those seasons for both individual households and larger family units who regularly come together for weeks at a time to share resources and help each other at every labor phase.

Indeed, it is notable that even with this expansion into extensive agriculture, Mapnan communities continue to actively practice and define their identity around an egalitarianism that was regularly remarked upon by myriad actors throughout my research. Previous ethnography has documented the highly egalitarian nature of Punan/Penan societies, whether socially, economically, or politically. This is seen in an

[8] Interestingly, however, he notes that the first record of swidden in the Lamcin community can be traced to 1963, the year he was born. This is because his Mapnan name translates to the Indonesian word, *padi* – or rice-based agriculture – and Mapnan names are given for the first thing a child sees at birth.

emphasis on reciprocity rather than production and accumulation (Rousseau, 1990), as well as a preference for decision-making via consensus rather than centralized authority (Sellato, 2002), both of which is found with Punan Kelay as well (Holmsen, 2006; Mardiyaningsih et al., 2018). Such egalitarianism was evident in multiple intersecting lines of evidence during my time with Long Lamcin and the surrounding communities. This included the sharing of resources, such as game, and labor across households; little gendered differentiation in livelihoods such as hunting and agricultural labor; majoritarian democratic processes for decision-making; and accompanying social practices of respect, humility, and patience – whether granting individuals uninterrupted time to speak during gatherings or individuals offering apologies and explanations if standing to speak before a group.

Non-Dayak NGO workers marveled at the ethic of solidarity and shared labor seen in Punan Kelay communities. A spouse of a villager noted that within her community from another Kalimantan province, meat was individually purchased and no longer shared freely between families like she's seen in Lamcin. The social and economic independence of Lamcin women in comparison to neighboring non-Dayak and Dayak communities was likewise commonly discussed and previously documented in upriver Long Suluy as well (Holmsen, 2006). Across cultures, as people shift from mobile livelihoods to more sedentary social systems, economic and gender roles often increase in differentiation. In Borneo this is captured in the economic and cultural difference seen traditionally between hunter-gatherer upriver communities and those more settled and agricultural further downstream (Sellato, 1994, 2002). Notably, this pattern was visible in the Punan Kelay villages as well, with a Lamcin spouse from a

further downriver Punan Kelay community expressing amazement and respect for the shared agricultural labor roles of men and women in Lamcin. Where in his birth village, men clear the swidden fields for planting, in Long Lamcin, both women and men take machetes, hatchets, and chainsaws to together open forest in preparation for swidden fields.

Missionization, the rise and fall of haji traders, and increasing settlement

The adoption of swidden by Mapnan dovetailed with the introduction of Christian missionization as well (Guerreiro, 1985; Holmsen, 2006), with colonial Christian missionaries first entering East Kalimantan in 1929 (Connolly, 2009) and arriving in Berau by the late 1950s (Holmsen, 2006). Dayak Kenyah and Segai missionaries reached Long Suluy by the late 1960s and while they were officially registered by 1972, they were still reluctant converts through the 1990s (Holmsen, 2006). The remaining Punan Kelay communities, including Long Lamcin, were converted by 1978 or 1979 (Guerreiro, 1985). This was corroborated in conversations, as well as documents from Long Duhung showing the progression of pastors dating back to the late 1970s.

With the introduction of swidden agriculture and Christianity, Punan Kelay – like many other such groups (Brosius, 1992; Needham, 1964) – became increasingly settled. This has influenced livelihoods, tenure systems, and relationalities in specific and dynamic ways. Before discussing the transition to sedentism, however, it is crucial to recognize forest product collection as a livelihood practice and patronage system that bridged the period from nomadism to settlement and continues to shape the economic and social worlds of Long Lamcin and Punan Kelay more broadly today.

There is a long history in Borneo of downriver agriculturalist Dayak groups, and later sultanates, colonial agents, and coastal Muslim communities, developing patron-client relationships with interior Dayak communities for the collection, sale, and eventual export of forest products (Brosius, 1992, 1999b; Needham, 1964; Obidzinski, 2003; Sellato, 1994, 2002). For the Punan Kelay, these relations reach back to the earliest records we have of communities entering the Kelay and Segah headwaters, when Segai (autonym: *Menggae*) displaced local Benua in the 18th century to dominate Berau's interior hinterlands before steadily moving downriver (Guerreiro, 1985; Holmsen, 2006; Obidzinski, 2003). Punan groups followed this Segai migration and became their "clients" in resource trade relations (Spaan, 1903), reproducing long-standing hierarchies and relationships between mobile foraging and more settled agriculturalist Dayak communities (Brosius, 1999b; King, 1993; Sellato, 1994).

With the bifurcating of Berau into competing Gunung Tabor and Sambaliung Malay sultanates, this patronage continued. The memory of the Sambaliung sultanate's role in organizing life for Punan Kelay, while not in living memory for most, was communicated to me by the customary leader of Long Kian, who explained his grandmother lived through that time and would tell stories of the sultanate's monopoly grip on trade, the need to request permissions to collect forest products and subsequently report back, and the final exchange of those products for goods like clothes.

Trade during this time was similarly coordinated through Segai intermediaries who were granted the title of *raja* or "king" and monopoly *pusaka* rights of control to particular watersheds (Obidzinski, 2003). At the turn of the 20th century, the Kelay was controlled by a series of male and female Segai *rajas* (Guerreiro, 1985; Spaan, 1903) who

facilitated the collection of resources, from *damar* resin to gold, for the sultans (Obidzinski, 2003). Relations between Segai patrons and Punan Kelay – much like those seen between upriver and downriver communities across Borneo – were complex, exhibiting elements of fictive kinship and trust, as well as economic exploitation (Holmsen, 2006; Spaan, 1903).

Given their distance from the capital, however, the sultanates' presence in the upper reaches of the Kelay was minor. This continued for the Dutch colonial administrators as well. Simandjuntak (1967) relates one exception, when from 1922-1942 the Dutch closed off the Kelay river to outside trading, instead supervising all cash-based trade meetings. These regulations followed the Brookes' paternalistic model from Malaysia (Brosius, 1999b), including the underlying rationale to "protect the Punan from exploitation" (Holmsen, 2006, p. 61).

Interestingly, both Dutch and Japanese occupations are still inscribed on the Kelay landscape, with people often pointing out while traveling the logging road a specific peak they call "Japanese Mountain," where a Japanese airplane from World War II is said to have crashed and still reside today. Similarly, within the original Long Lamcin village – sited at the confluence of the Lamcin river and the larger Kelay, and known today as "the old village" (*kampung lama*) – there sits a large stone slab with a location marker, evidence community members said of the "Dutch era" in the region, though years of exposure and children playing atop it, noted several adults, has rendered the original stone inscription illegible.

By the 1950s, with the exit of both the Japanese and the Dutch, forest product trading resumed, with Malay, Chinese, and Arab traders moving freely and regularly

along the Kelay to trade with Punan (Holmsen, 2006), and by the 1980s, a series of Muslim traders or *hajis* had set up small fiefdoms with individual villages, coordinating teams to collect forest products for commercial trade, largely following the 20th century boom-and-bust cyclical demand for rattan, *damar*, and *gaharu* (Guerreiro, 1985; Holmsen, 2006; Obidzinski, 2003). Holmsen (2006) documents the rise and fall of one such *haji* from the 1960s until the early 2000s and describes how this *haji* created not simply a monopoly over forest product trade with Long Suluy but a complex patron-client relationship that spanned economic, social, and kinship relations.

This type of patron-client relationship occurred in Long Lamcin as well, with the *haji* eventually marrying into the Lamcin community, while simultaneously creating new economic hierarchies, livelihood patterns, and working conditions. This complicated social dynamic was made clear when Lamcin's village head reflected that that was a time when they were "governed" by such traders, spending months in the forest at a time. Indeed, a close friend in the village got emotional when thinking back on this era with its evident grift and dishonesty, looming threats of violence, unfair labor practices, and the driving sensation of being "not free." "From that," he said, "we also saw that they truly bound us. Because if we got away from them, we certainly would know the true price [of products]." He continued: "Back then they were political. Nowadays, yeah, that's the language now. Political is the name now. That is the reason we were enslaved."

By the early 2000s, these *haji* traders' influence over the lives of Long Lamcin villagers and other Punan Kelay had largely subsided as logging companies and international NGOs entered the area. The Long Lamcin community by this time was based at the confluence of the Lamcin and Kelay rivers, in the "old village" mentioned

previously. However, families still spent most of their time in the forest, coming back to the village only occasionally. This situation has been documented along the upper Kelay since at least the 1930s[9]. While nearly every adult, young and old, remembers the "old village," life histories of those same people emphasize an emphatically mobile and forest-based life up to that point. "It wasn't like today," the village head reflected, where the community is primarily based in the village:

> [We] weren't long in the village. Just empty houses. For example, if it was swidden season or *gaharu*-searching season…honey seasons, fruit season…It was longer in the forest than in the village. Why were we longer? Because there wasn't a reason for us to be in the village, except to want to make swidden fields…But we didn't live in houses, we slept in the swidden field…[and] at the time of work, collective work, we gathered together directly in someone's field.

The decentralized nature of village governance at this time becomes evident through these conversations as well, which mirrors much work on Punan/Penan peoples (Sellato, 1994). As the same village head explained: "There wasn't what's called territorial boundaries yet. There wasn't what's called government regulations that give the village the authority to regulate the entire village, that wasn't known yet." Even the village head would join for months in the forest. The phrase, the head said, was:

> "Not long in the village, but long in the forest." And we had an old village head, my own uncle…he was very long [in the forest], because [there] wasn't much business in the city, or in the sub-district, so he could also spend months in the forest. Because the one who governed us was a trader at that time.

Early visitors from The Nature Conservancy (TNC) noticed the village dynamic discussed above when they would arrive to conduct activities and find the villages seemingly abandoned. TNC practitioners first came to in Berau in 2000 with the goal of

[9] Holmsen (2006, pp. 56–57), referencing work by Tillema (1989), writes that "by the 1930s the Punan along the Kelai had permanent 'settlements', consisting of small groups of bamboo huts, to which they returned now and again."

promoting sustainable forest conservation and protected area development there. These efforts focused primarily in the Kelay watershed where the most pristine forest and wildlife habitat was and remains located. From 2002-2007, they partnered with the Indonesian community development NGO, World Education, to develop community-oriented cacao agroforestry and orangutan habitat protection programs across 12 villages, including all seven Punan Kelay communities (L. Fisher & Fisher, 2007).

Before TNC arrived in 2000, a single concession, PT Alas Helau, covered 330,000 hectares across the Kelay watershed (Obidzinski & Barr, 2003). After its license was revoked over charges of "'corruption, collusion, and nepotism'" in 1998 (Obidzinski & Barr, 2003, p. 24), the Ministry of Forestry and Estate Crops divided its concessions among five Jakarta and Samarinda-based companies who began entering the upper Kelay system in 2000[10]. PT Amindo first arrived to the area shortly after that, with its original base camp sitting where Lamcin's village is located today. While Amindo has come and gone at least three times since they first arrived, today their camp is located just across the Kelay river from a timber staging area adjacent to Lamcin[11]. Throughout these iterations, they have played and continue to play an outsized role in the economic and social world of the Lamcin community.

Further settlement and sustained timber company and conservation NGO presence

Long Lamcin moved their village site to a more permanent location in 2004. While not all community members agreed with the move, most suggest the decision was democratically-made and largely due to the district government's decision to build an

[10] These companies included: PT Karya Lestari, PT Mardhika Insan Mulia, PT Aditya Kirana Mandiri, PT Wana Bhakti Persada Utama, and PT Amindo Wana Persada.
[11] This staging area is rented by PT Amindo from a Lamcin community member who had previously opened it for agriculture before the timber company arrived.

elementary school for Lamcin's children[12]. When asked why the community moved downstream across from Amindo, the most common reply was that the old location was "too narrow" to adequately allow the school and subsequent buildings to be built. Instead, they decided to move where Amindo's original base camp was, as the timber company had left almost as soon as they had arrived due to a lack of profitability. As the second iteration of Amindo entered the area, Lamcin requested their help to clear and level the land where the current village now sits. Indeed, the original Amindo base camp building is where Lamcin's long-standing, now-deceased customary leader's home remains.

With Lamcin becoming increasingly settled, TNC assumed a governance role in the village, helping organize Lamcin to better align with national requirements to establish a political system, official working groups, and budgetary plans. As one young father explained, "…after there was TNC then there was village laws." TNC's influence on Lamcin was articulated by community members young and old, with the current village head explaining their role in informing the village about relevant national and internationals laws:

> They, TNC, really trained us, revealing all the laws that there were in our country and outside. Like government regulations. So at that time, I started to learn and understand how, the meaning, what is meant by government regulations. And they taught [us] quite well, inviting us…to study and practice, really practice. And I started to have my mind opened. After that, I started to feel little by little my nervousness, which made me not confident to face other people or talk with other people, start bit by bit to be lost.

[12] Such reasons for moving mirror other villages in the area. According to Long Suluy villagers, in 1989 "they 'were called' by the *bupati* (regent governor) to move below the rapids where the 'government', including teachers and nurses could reach them. And they say they wanted easier access to the downriver capital" (Holmsen, 2006, pp. 57–59).

While some, such as the village head above, expressed appreciation for TNC'S work, their efforts at education, and the regulations they introduced, other community members expressed frustration and disapproval at TNC's emphasis on existing laws and what they felt were new regulations for what animals they were allowed to hunt and areas they were allowed to go, dismissing it as disconnected from their day-to-day lives and disrespectful of their existing territorial rights.

Such reflections speak to the implicit and explicit ways in which non-state interventions such as TNC's fall under the rubric of environmental governance. There is by now a long history in anthropology of interrogating how such governance agendas and efforts not only create particular environmental subjects, and concurrently responsive agents, but how increasingly such agendas and efforts are diffused across different actor groups (Agrawal, 2005; Ferguson, 2006; Fletcher, 2010; M. Goldman, 2005). Rather than strictly top-down and state-monopolized, environmental governance today is networked across state, private, civil society, multilateral, and community actor groups, whose rights and responsibilities are differentially allocated (and attended) (Bäckstrand, 2008; Bumpus & Liverman, 2011; Lemos & Agrawal, 2006).

For many in the Global South, this is captured in the idea of "transnational governmentality" (Ferguson, 2006, p. 40), which has been described as "'government-by-NGO'" (2006, p. 40) and "a transfer of the operations of government (in Foucault's extended sense) to nonstate entities" (Ferguson & Gupta, 2002, p. 989). This kind of governmental outsourcing is commonly found across the globe, arguably best articulated in a memorable phrase from a Papua New Guinea villager who reflected that "conservation is our government now" (P. West, 2006). Tania Li (2007) shows that such

efforts in Indonesia have shown a historical continuity centered around a driving "will to improve," and yet while they are often critiqued as "'a depoliticized mode of technocratic governance'" (Ferguson, 2006, pp. 12–13), it is also important to recognize that such acts and assemblages of governance are not simply coercive, exploitative, or unidirectional. Rather they encompass historically-mediated, affective relations of trust, friendship, and empowerment as well (Hardin, 2011; Singh, 2015). TNC and World Education's efforts in the Kelay watershed and Long Lamcin in particular exemplify these dynamics and the complexities therein.

Indeed, like past iterations of Amindo, TNC and World Education's impact and memory remain physically and emotionally visible in the village, whether seen in myriad old TNC posters and photographs adorning people's walls; stories shared of language barriers confronted, skills learned, and friendships made; and common reference to the now-repurposed buildings where World Education facilitators worked and lived for those years. And from a governance perspective they were also arguably helpful, assisting with accessing governmental funds for village development and organizing Kelay and Segah village collectives to create solidarity and increase political power. In addition to bringing a variety of jobs to the community, whether as motorists or research assistants for orangutan surveys, some villagers noted that the agroforestry programs from World Education have also helped a subset of people, especially those that prioritized their cacao gardens' upkeep.

Others in the community, however, fretted that such agroforestry programs and their intensiveness can disrupt and not align with the fluidity and flexibility required for their other livelihoods. In describing the rationale for World Education's promotion

agroforestry, one friend pointed out that another way of seeing it is as a method of settlement and control. He explained: they "directed the idea for us as one we should want, so back then we told them that we want to receive [cacao]." The work of opening and tending such gardens, however, "has tied us so that we can't enter the forest again like we did before." "*That,*" he said, "is the reason" they pushed agroforestry. With people away in the forest for months, it was "incredibly hard" for World Education to meet with the "people they need." "That," he noted, "is really the truest reason."

Perhaps the most notable governance aspect of TNC's work in the Hulu Kelay, however, was their role in creating the contemporary recognized boundaries of area villages. Where before villages were largely temporary, people largely mobile, and groups' boundaries largely porous, TNC, World Education, and the district government worked with the villages to delineate specific community territories. The head of Lamcin during this time reflected: "before them, TNC, there were no boundaries. There were no boundaries yet. People were just free. After TNC had arrived, then there were…Because TNC made them." The current head today confirmed:

> [Boundaries between villages] happened after TNC. TNC alone opened up the thought pattern and facilitated the creation of boundaries. Before there was TNC, there were no legal boundaries, which were divided by each village…only verbally people saying, "Oh, this village is here," just the village, but there weren't boundaries between villages, so it was still free at that time.

A Lamcin community leader elaborated that it was TNC and the district government who "coordinated or encouraged" the creation of delineated villages – "so that there are boundaries between the villages of Long Suluy and Lamcin, Lamcin and Long Pelay" – and that they did so largely because concessions were entering the region.

The value of this work to help hold timber concessions and outside actors accountable was articulated by the current village head:

> …they shielded us from all of the threats that came from outside…if TNC did not come, notify, report, what scourges were coming from outside, whether it was, for example, companies or other investors with interests in the forest, I think we would just be expelled from the forest.

The same community leader in describing the process of making the boundaries referenced both the unity felt across Hulu Kelay communities and its inclusive and democratic approach: "They held a meeting between the two sides of the village, Kelay is one village. So there was a gathering – Long Gie, Long Beliu, until Long Suluy – several times a year to discuss it, to divide the territory. After they had agreed, it was taken to the district to be determined."

World Education practitioners from that time explained that they explicitly sought to build on TNC's emphasis on identifying boundaries between village territories and timber concessions, and accompanying high conservation value areas, to center community needs, arguing that clear village boundaries and governance structures would help make the communities more visible to the state, reduce conflict with neighboring concessions, and ultimately solidify recognition of community land rights by these state and private sector actors. Their goal was "…recognition from the government that there is a village, it has a clear territory, [and] then they also have the right to get support for basic services such as education and health from the government…" While they were not able to achieve "legally definitive" recognition of community management rights, the practitioners nevertheless felt they were "quite successful" in helping Lamcin become recognized and supported by the district government.

Concerns in the Hulu Kelay and Long Lamcin in particular over government recognition and concessionary domination align with both the long history of illegibility of mobile peoples to state interests in Southeast Asia and Indonesia (Brosius, 1997, 1999b; Scott, 1998; Tsing, 2005), as well as the dominant political and economic role of resource extraction in Berau (Obidzinski, 2003; Permana, 2012; Thaler, 2017). Today four timber companies work in Lamcin's 88,000 hectare territory and when joined with nationally-controlled areas show the stark lack of *de jure* land rights held by the communities there. Similar to the situation with TNC, this concessionary presence has created longstanding relations between timber companies and the local communities living in and around their concessions.

Rebecca Hardin (2011) describes such arrangements as a form of non-state environmental governance grounded in "concessionary politics." Whether seen with timber companies or tourism operators, the "concession" in this framing encompasses both the legal act of spatially defining resources and rights and the myriad social processes enmeshed in their lived practice (2011, p. S115). Pointing to cases in central Africa of logging companies providing medical, education, and infrastructural support to their workers and area communities, concessionary politics illustrates how this "interdependence displaces the role of the state in local and regional politics while reinforcing the relevance of national governments in framing the parties to be involved in these provincial politics of patronage" (2011, p. S119). Centering the fundamentally human aspect of such arrangements, concessionary politics "unites widely disparate actors on intimate if unequal terms" (2011, p. S119) while showcasing a clear continuity

between “colonial legacies of patronage” and the complex conservation economies of today (2011, p. S120).

The arrival of Amindo to Lamcin brought multiple overlapping changes to Lamcin life, including economic opportunities to work for Amindo as surveyors, mechanics, chainsaw operators, boat drivers, and kitchen hands, at the time even helping to build that first road that eventually reached Amindo’s base camp across from Long Lamcin. Indeed, an overwhelming majority of village men have experience working with at least one of the four timber companies that have operated and continue to operate in the Lamcin territory. Such employment has brought both changing livelihood systems to these communities (Mardiyaningsih et al., 2018) as well as particular benefits, including the building of skills and capacities and the ability to pass that knowledge onto others. One friend explained: “It seems like it depends on us. If we want to take advantage of the company, it feels really good. There seems to be a slight improvement.” He continued, “I mean, for example, from an experience perspective, if we work in a company, it feels that the experience is broader than working in the forest.” He further elaborated:

> “broad” in the sense that things we didn't know before, [we] then come to know. Like the previous example. [When] I first entered, I didn't know, how do you say, to use a chainsaw. It turns out that from when I entered until today I can handle the chainsaw myself…Until now, if there is an engine, like a car, that has damaged parts, I can hear it. Or if there is burning inside, I already know. Because I used to be in mechanics…That's a very good thing. If I have something that happens with a machine, I can know without me having to ask other people if there is a problem.

The current village head made a similar point:

> At that time I worked in a company…I was a chainsaw operator, cutting wood, cutting logs…For four years I worked like that, and many people – my friends as operators, my seniors at that time – I enjoyed learning with them. Good work,

> how to service tools like the chainsaw. That was good. So, I studied a lot there, so that – if I can say, I'm just being honest – I was also a senior chainsaw [operator]. If it's broken I can fix it...A lot of my friends learned from me, about damage, work techniques, so the knowledge I brought it home.

The introduction of a logging road connecting Amindo to the capital city in 2003 also had substantial social and economic implications for Lamcin, with a trip that used to take multiple days by boat now taking a matter of hours over land. It also enabled a new class of Muslim *haji* to operate small fleets of pick-up trucks to and from Amindo, facilitating trade with and transportation for the upriver communities. Both the *haji* traders and the logging company regularly act as motor taxis nowadays to the capital, whether for visits to the hospital, business with forest product merchants, or enjoying time off.

In many ways, timber companies can be seen as the new patrons for Hulu Kelay communities. This is seen in Lamcin through not simply the relations elucidated above, but in the myriad forms of aid and other complex social relations seen between companies and community members, whether the assistance given by Amindo at the beginning of Lamcin's relocation to what continues to be given today in the guise of transportation, the use of their camp's Wi-Fi signal and meals provided by the kitchen, and an established arrangement where Amindo pays for Lamcin's gas generator, providing the village electricity during the nighttime hours as compensation for previous customary land transgressions[13].

[13] Obidzinski and Barr (2003, p. 25) provide context for such compensatory arrangements, noting that they were commonly negotiated as timber companies entered the Hulu Kelay region and subsequently faced pushback and demonstrations by area Punan Kelay communities who watched their territories affected by logging activities. The authors reflect, however, that: "With little active support from the district government and no outside mediation, the communities of the upper Kelay often found themselves at a distinct disadvantage in their negotiations with the companies. Lacking skills and experience in such negotiations, the communities quickly found themselves in the position of accepting short-term fixes that

Examples such as those above illustrate how Amindo and other timber companies have become arguably the most immediate and consequential actor in Lamcin's day-to-day life. The tenurial transgressions, however, also remind Lamcin villagers that, despite the many formal and informal ways Amindo and other companies contribute to their lives, they need to remain vigilant and active in the representation of their interests and communication of their concerns. As one elder reflected, it required multiple requests before Amindo helped clear and level the area for their new village: "It's also difficult, this company. If we didn't tell them many times, they didn't want to." Another elder, who was the village head during that time, concurred: "If we are not hard with the company's manager, he will not respond to what we put forward within the company." He reiterated this point with the example of the village's customary hall, which was under construction while I lived in Long Lamcin:

> We have to be strong in asking about their responsibility, like with our hall, the customary hall. That customary hall we asked the company for compensation before because it entered our territory's customary land. Because we suggested that they must follow where we gave permission, to go downstream there. The company didn't want to, so we marked the date at that time. So we were the ones who gave in. They entered the customary land, so we asked for compensation there to build a customary hall. Because they destroyed customary land, they have to build a customary hall. Even then, if we didn't, the term is "become angry with them," the community being united in facing them, then they also almost didn't want to do it.

Indeed, it took years for the hall to be built, only being finished while I was living there, though as many villagers noted the payment for the customary carvings around the hall still has not come. "That's the only problem with the company," the elder reflected. "There is also good, there is also not good. If we are not strong, the company also will

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did not lend themselves to any deeper quantitative and/or qualitative restructuring of the community-concessionaire relationship."

not be good." Discussing such conflicts, the current village head explained that TNC was called upon at times to help negotiate resolutions between the village and the company when an internal agreement could not be reached. With TNC's support, he noted, "conflict could be resolved within the family, because at that time we were still guided by TNC. There was TNC if there was trouble like that with the company, who were also able to come assist us, to guide us in solving the problem."

Establishment of the Berau Forest Carbon Program

Together this reiterates the interwoven relationships both between Lamcin and Amindo, as well as Lamcin and TNC, and ultimately the hybrid nature of governance across these landscapes. This dynamic hybridity can be clearly seen in that, while Amindo and three other timber companies continue to operate in and across Lamcin's borders, the constellation of non-state civil society actors working there has shifted over time. Notably, while TNC and World Education finished their work in 2007, with the rise of REDD+ as an international conservation priority, TNC soon after co-established with the Berau district government the Berau Forest Carbon Program (BFCP) in 2009. With the goal of advancing the BFCP's jurisdictional REDD+ agenda, they established and began working with two "model" villages along the Kelay river, the downriver community of Merabu and the upriver Hulu Kelay village of Long Duhung. TNC's work here focused on the pursuit of community-based development and the creation of a replicable community-based REDD+ protocol known as SIGAP.

Soon after this, the bilateral Germany-Indonesia FORCLIME[14] program focused on promoting community-oriented emissions mitigation in the upper Kelay and Segah

[14] FORCLIME stands for Forest and Climate Change Programme, a joint effort by Germany and Indonesia to promote REDD+ and sustainable forest management in Indonesia.

river systems, with community members in each village facilitating village-based REDD+ activities. Beginning their work in Lamcin in 2013, a series of villagers have worked as FORCLIME facilitators to organize and pursue community-based forest monitoring and household agroforestry programs there.

During this time, TNC began subcontracting smaller Indonesian NGOs to implement SIGAP in 26 additional villages across Berau, with one of those being Long Lamcin. The NGO charged with implementing SIGAP in Lamcin was a South Sulawesi community development organization known as Payo-Payo. Renting a spare home in the village as a field office, they began their work in 2015, with a facilitator living in the village and pursuing the community-based conservation and development work of SIGAP until their funding ended in 2019.

And so, by the time I arrived in Lamcin in mid-2017 there were three separate environmental interventionist programs concurrently running. This included Payo-Payo's SIGAP efforts, FORCLIME's REDD+ demonstration activities, and the local NGO Patriot Negeri, who was hired by the district government to promote sustainable community development – whether clean water, healthcare, or green energy – in each of Berau's roughly 100 villages. The Patriot Negeri facilitator spent nearly a year in Lamcin, arriving in early 2017 and eventually conducting a feasibility study of alternative energy options, as well as a series of informal, community mapping activities.

Collectively, these interventions cast clear echoes of projects past, such as the continued promotion of market-based agroforestry seen earlier with World Education. They also presented new efforts at governmental control and the creation of new environmental subjects, perhaps most notably through the SIGAP protocol and its

incentivization of reducing swidden agriculture through performance-based payments (Fletcher et al., 2019; Thaler & Anandi, 2017). When asked about these various projects – and their goals, benefits, or challenges – some Lamcin villagers were able to articulate clear differences between them, as well as a range of perceptions regarding their fairness and utility. What emerged most frequently, however, was the clear through-lines and similarities found between them, with many expressing confusion as to the exact differences between the organizations' agendas and sources of funding. Observation of, and participation in, both daily village life and myriad project activities likewise pointed to the power of long-term, place-based engagement by these NGO actors and the resulting complex relationships of friendship, familiarity, trust – and distrust – that emerged from their formal, and informal, work.

Taken together, this history of Long Lamcin and the greater Hulu Kelay region reiterates Obidzinski's (2003, p. 21) observation that Berau's governance structure is one of "clientelist coalitions" whose structure is persistent with simply the component actors changing over time. I extend this analysis to the environmental governance actors that arose since his research and that continue to wield enormous influence today. This reality is captured in language used by community members above when discussing the series of overlapping governance regimes – colonial and postcolonial, state and non-state alike – they have interacted with over time, whether seen in terms like "trained" (*membina*), "facilitated" (*memfasilitasi*), "guided" (*membimbing*), "governed" (*mengatur*), "directed" (*mengarahkan*), "coordinated" (*mengkoordinir*), "encouraged" (*mendorong*), "shielded" (*menyelamatkan*), "bound" (*mengikat*), or "enslaved" (*diperbudak*). From sultanates, downriver communities, and *haji* traders to the arrival of

timber concessions and conservation NGOs, Long Lamcin and its neighbors have long been embroiled in, and adapting to, complex political economic systems and the territorial, land use, and land tenure implications therein.

Dissertation organization

In the following five chapters I tie together my ethnography with the Berau Forest Carbon Program (BFCP), TNC's community engagement protocol, SIGAP, and the Punan communities of the Hulu Kelay to analyze the intersection of rights-based conservation, REDD+, and relationality in East Kalimantan, Indonesia.

My second chapter examines how landscape-scale and rights-based conservation agendas mutually reinforce and influence each other in Berau. I do this by showing 1) how the BFCP aligns with Indonesia's national vision of green growth in its pursuit of REDD+ policy and 2) how SIGAP facilitates that vision through sustained community engagement, targeted programs, and the promotion of particular forest governance policies. I then show how SIGAP's rights-based agenda has morphed alongside the BFCP's landscape-scale ambitions, expanding from its beginnings as a field-based community engagement protocol to become a district-wide multi-stakeholder social media app. Together this work emphasizes that rights-based instruments such as SIGAP are governance mechanisms whose capacity to safeguard rights is shaped by both political economic contexts and the particular forms in practice they take. This article reinforces the need for conservationists to recognize potential tensions between rights-based instruments and wider environmental governance regimes, as well as the non-linear relationship between policy and practice in their work.

My third chapter builds on my second to focus on the REDD+ social safeguard priority to obtain communities' free, prior, and informed consent (FPIC) and its translation within SIGAP and the BFCP more broadly. By tracing SIGAP's expression as a written manual, lived practice, and social media application, I show how each iteration presents distinct opportunities and challenges for pursuing and safeguarding FPIC in the BFCP. This is especially the case as SIGAP's mission has changed as it scales out from two pilot villages to the entire district as an app. Ultimately this article points to the promises and dangers of rendering rights like FPIC scalable and digital, with an eye to the role of culture and history in shaping not only rights' dynamic implementation but their diverse interpretations.

My fourth chapter returns to the central paradox of Berau, in which it is both a case study for advancing REDD+ and community rights in Indonesia, as well as a key node in Indonesia's wider extractive regime whose success is in many ways predicated on dispossessing local communities of land. Drawing on my community and institutional ethnographic research, as well as a co-created participatory mapping project, I explore the place of the Hulu Kelay within this paradox. In particular, I focus on the more-than-human world evident there and ask how attention to this expanded set of social actors allows new and different questions of rights and governance to be asked. I end by suggesting that rights-based conservation would do well to center its efforts around the concept of relationality – that is the relationships that undergird and shape a place and its peoples. Such a focus offers lessons not only for respecting customary tenure regimes and reducing stakeholder conflict, but also for more clearly considering power differences across both humans and non-humans in complex conservation landscapes.

My fifth chapter is a short reflection on the process of co-developing my participatory mapping project and its cultural landscape booklet. I examine the project's desired benefits for the Lamcin community, its relationality to the wider history of counter-mapping, and long-recognized representational and ethical challenges. I discuss the need to be discerning regarding public versus private data in community research and my hope that this work can help advance such considerations and attention to more-than-human geographies in conservation landscapes. In my final concluding chapter, I summarize these findings and discuss future directions for academic research and conservation practice.

CHAPTER 2

SEEING LIKE A SMARTPHONE:

THE CO-PRODUCTION OF LANDSCAPE-SCALE AND RIGHTS-BASED CONSERVATION[15]

[15] To be submitted to *World Development*

Abstract

Landscape approaches are heralded as ways to advance more effective and equitable social-ecological governance by working across economic sectors and stakeholder groups. There remains a need, however, to understand how they are enacted in particular contexts, how rights-based efforts are pursued within them, and what this means for the protection of community rights. Developed in partnership by The Nature Conservancy and the Berau district government, the Berau Forest Carbon Program (BFCP) uses a landscape approach to advance REDD+ policy in East Kalimantan, Indonesia. Drawing on 26 months of ethnographic research across international, national, subnational, and village governance levels, I find the BFCP aligns with Indonesia's national vision of green growth. Focusing on the BFCP's rights-based instrument known as SIGAP, I find that it enacts and facilitates that green growth vision both through forest governance policy and as a malleable "technology of power" (Foucault, 1980). Tracing how SIGAP has expanded over time from a community engagement protocol to become a multi-stakeholder platform and social media app, this work empirically documents how landscape-scale and rights-based conservation agendas recursively influence each other and that this dynamic co-production illuminates important tensions between rights-based agendas and projects of environmental governance (Jasanoff, 2004). Ultimately, this article presents a valuable case study for thinking through the diverse kinds of work rights-based instruments can do and centers the need for conservationists to recognize rights-based approaches not as technical toolkits but rather governance mechanisms to be considered and navigated appropriately.

Introduction

"What you should also know, Walker, is that this application is very closely watched." Sitting with Amir[16] in his field office in the beginning months of 2018, we were discussing the recent launch of a social media app designed to complement his NGO's community-based work for the Berau Forest Carbon Program (BFCP) of East Kalimantan, Indonesia. While most of my research to date had centered around village-level REDD+ activities in the BFCP, emerging concerns raised by practitioners like Amir about the new app and its potential to monitor their activities and moderate their content piqued my curiosity. It also raised to mind a driving question: Namely, what is the relationship between landscape-scale conservation programs like the BFCP and the rights-based efforts associated with them? And what implications does scaling up rights-based efforts, such as through a social media app, have for the actual protection of community rights?

I draw on 26 months of multi-sited ethnographic research with the Berau Forest Carbon Program to answer the questions posed above. The BFCP is a jurisdictional REDD+ project that spans the entire East Kalimantan district of Berau, whose 2.2 million hectare extent is shown below in Figure 3, divided between 1.7 million ha of forest estate (seen in light and dark "production" and "protection" forest, respectively) and 0.5 million ha of "convertible land area" for non-forest uses, such as agriculture, shown in brown.

[16] Amir is a pseudonym.

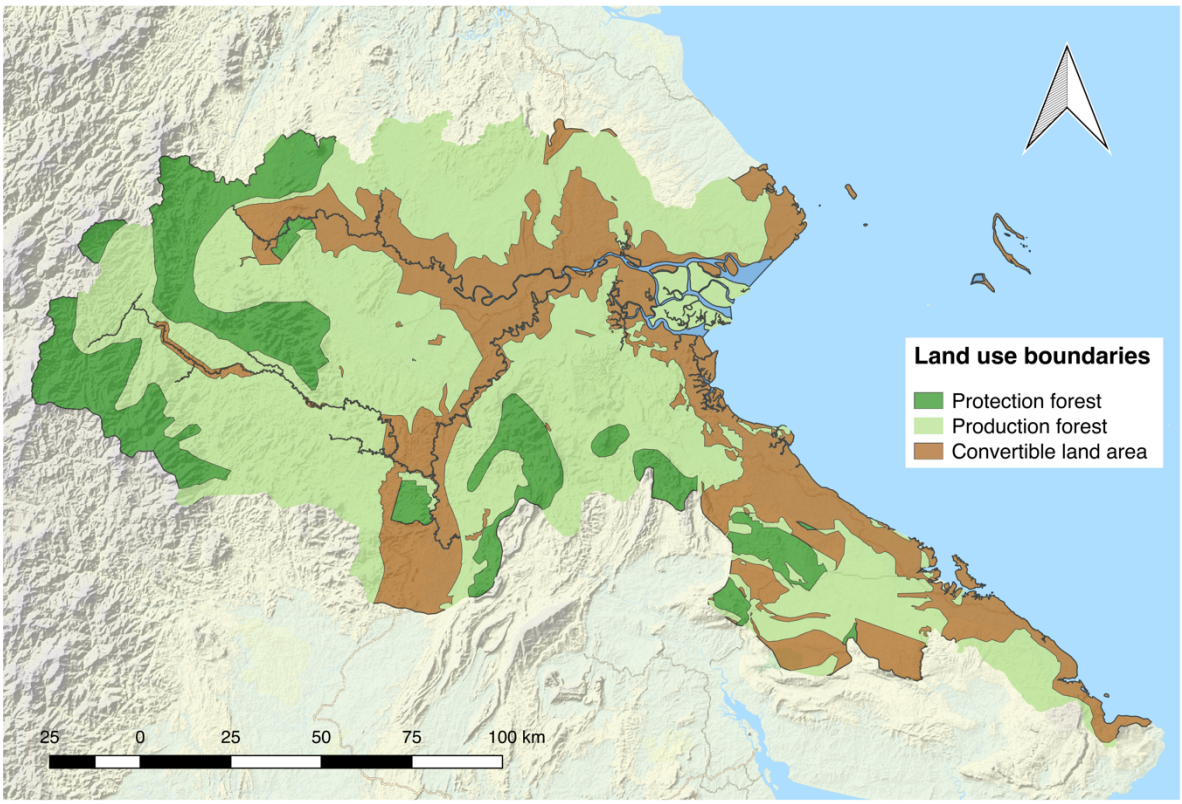

Figure 3. Jurisdictional extent and land use designations in Berau, East Kalimantan (Map by W. DePuy. Data from KPH Berau Barat, OpenStreetMap)

Jurisdictional programs like the BFCP, whose borders correspond to relevant political boundaries, are increasingly popular examples of so-called "landscape approaches" to environmental governance (Hovani et al., 2018; Umunay et al., 2018; Wunder, 2020). By working across economic sectors, stakeholder groups, and large spatial extents, landscape approaches aim to advance more effective and equitable resource management (Arts et al., 2017; Boyd et al., 2018; Minang et al., 2014; Nielsen, 2016; Reed et al., 2019; Sayer et al., 2013, 2015; Vermunt et al., 2020). Their emphasis on inclusive stakeholder participation also importantly aligns with the global trend to

promote and protect human rights in conservation and development practice (Reed et al., 2020; Ros-Tonen et al., 2018; Sayer et al., 2013).

In this article, I focus on the BFCP and the rights-based protocol developed for it known as SIGAP to understand: 1) how landscape approaches are discursively structured and enacted within national contexts, 2) how rights-based instruments like SIGAP are pursued and enrolled within them, and 3) what this means for the promotion and protection of local communities' rights.

I begin by historicizing the global trend of landscape-scale conservation and its relationship to ecomodernism and green development. Next, I outline how Indonesia's current emphasis on green development undergirds both its national forest governance regime and the BFCP's jurisdictional approach. I then pivot to examine in detail the rights-based instrument, SIGAP: how it supports the BFCP through village-level REDD+ enrollment, and how its form, purpose, and governance structure have changed as it has scaled out to more and more villages. Explicitly designed to be replicable and scalable, SIGAP has curiously expanded from a community engagement protocol to become a multi-stakeholder platform and social media app. Ethnographically tracing this development, I find that SIGAP is a malleable "technology of power" designed to operate at the landscape scale and facilitate Indonesia's wider green growth agenda (Foucault, 1980). Ultimately, this work shows how landscape- and rights-based conservation agendas can recursively influence each other and that this dynamic co-production illuminates important tensions between rights-based agendas and projects of environmental governance (Jasanoff, 2004). I end with a call for further empirical

investigation into this co-production and the diverse social and political work rights-based conservation instruments perform.

Landscape approaches as vehicles for ecomodernist, "green" development

Ecomodernism is a global development discourse that draws on ecological modernization theory to posit a reconcilable relationship between economic growth and environmental sustainability, in particular through the "decoupling" of economic development from environmental degradation (Asafu-Adjaye et al., 2015, p. 7). Increasingly widespread throughout conservation and development practice (Thaler, 2017), ecomodernism takes as its lodestone a "good Anthropocene" in which, according to self-described ecomodernists, "humans use their growing social, economic, and technological powers to make life better for people, stabilize the climate, and protect the natural world" (Asafu-Adjaye et al., 2015, p. 6).

Green development draws on this ecomodernist logic to encourage and incentivize market-based actors towards social and environmental reform and in so doing generate "win-win" sustainability and economic outcomes (Z. R. Anderson et al., 2016; Arts et al., 2017). This is exemplified by the United Nations' policy of REDD+ (or Reducing Emission from Deforestation and Forest Degradation) that aims to mitigate carbon emissions through the international financing of tropical forest conservation while simultaneously promoting social and environmental protections through safeguard mechanisms (Anderson, et al. 2016; Aicher, 2014; Krause & Nielsen, 2014; McDermott et al., 2012).

With the growing recognition that conservation efforts need to move beyond protected areas and focus instead on landscapes that are inseparable from the people who live and work there, green development has gained purchase globally through explicitly *landscape-scale* approaches to environmental governance. These approaches' overarching aim is perhaps best captured by the Work Bank and their desire to:

> [bring] together actors across economic sectors to implement integrated landscape programs that enhances people's livelihoods while delivering ecosystem benefits such as carbon sequestration, biodiversity conservation, and land restoration. (World Bank, 2021)

Tracing their genealogy to both community-based conservation and ecoregional planning (Brosius & Hitchner, 2010; Brosius & Russell, 2003; Lowe, 2006; Velásquez Runk et al., 2010), landscape approaches are seen as a "natural" or "common sense" correction of past environmental governance efforts (Nielsen, 2016, p. 183) by striving to harmonize social-ecological relationships across large spatial extents, diverse land uses, and multiple economic sectors and ultimately navigate complex upstream and downstream relationships where others have failed (Arts et al. 2017; Boyd et al. 2018; Clay, 2016, 2019; McCall, 2016; Minang et al. 2014; Nielsen 2016; Reed et al. 2019; Reed et al., 2020; Ros-Tonen et al., 2018; Sayer et al. 2013, 2015; Vermunt, Verweij, and Verburg 2020). Finding form across economic spheres, from palm oil and timber to "climate-smart" agriculture and watershed management (McCall, 2016; Nielsen, 2016; Ros-Tonen et al., 2018), landscape approaches are intimately connected to an ongoing ecomodernist debate in international conservation and development that seeks to answer the question:

> *How do we achieve the greatest conservation outcomes in a landscape given demands for food, fibre and fuel?* Should we intensify production in one part of the landscape so that we may strictly protect (spare) the remainder? Or should we

> integrate (share) production and conservation in the same areas? (Griscom & Goodman, 2015, p. 145; emphasis in original)

Responding to this land "sparing" versus land "sharing" debate, ecomodernist discourse argues that "sparing" land from extensive land use activities and instead concentrating those activities more intensively is economically efficient and environmentally preferable, facilitating coupled environmental and economic progress (Asafu-Adjaye et al., 2015, p. 7). This logic notably drives the strategies of a wide range of global environmental governance actors today, including the international conservation NGO, The Nature Conservancy (TNC), and its work across complex conservation landscapes and diverse actor assemblages in Brazil and Indonesia (Thaler, 2017).

One example of such a landscape undergirded by TNC's influence is the Berau Forest Carbon Program (BFCP), a jurisdictional REDD+ project in East Kalimantan, Indonesia. In the paper that follows I argue that the BFCP provides a valuable case to understand not simply the ecomodernist underpinnings of landscape approaches, green development agendas, and REDD+ policy, but how they are produced in particular national and subnational contexts.

Green growth, REDD+, and forest governance in Indonesia

With one of the world's highest rates of deforestation and a booming demand for agricultural and forest-based commodities (Hansen et al., 2013; Margono et al., 2014), the Indonesian state is inextricably connected to the global political economy of natural resource extraction (Brockhaus et al., 2012; Gellert, 2010; Resosudarmo et al., 2014). This extractive regime (Gellert, 2010) can be traced to the colonial era, beginning with the spice and timber trades, and continuing post-independence through plywood, pulp

and paper, mining, and oil palm expansion today (Brockhaus et al., 2012; Gellert, 2010; Resosudarmo et al., 2014). While adapting to changing political structures, resource extraction remains fundamental to Indonesia's economy (Gellert, 2019), with 80% of its national greenhouse gas emissions coming from land conversion (Margono et al., 2014; Resosudarmo et al., 2014).

To address its contribution to global emissions, Indonesia has been at the forefront of REDD+ policy adoption, garnering hundreds of millions of dollars from public and private donors and establishing the most demonstration projects, numbering in the dozens, anywhere in the world (Bae et al., 2014; Hein, 2019). In 2009, the national government committed to reduce greenhouse gas emissions by 26-40% by 2020 (since extended to 2030) and in 2010 signed a $1 billion agreement with Norway to establish a national REDD+ infrastructure (Z. R. Anderson et al., 2016; Harada et al., 2015; Hein, 2019; Setyowati, 2020). At the same time as they committed to reduce carbon emissions, however, the national government set an economic target of 7% growth. To reconcile these ambitious efforts – what Anderson, et al. (2016, p. 38) call the "paradox" between extraction-dependent economic growth and climate change mitigation – Indonesia established a national Green Growth Program in 2013, with REDD+ a central pillar in its green development strategy (Z. R. Anderson et al., 2016; Astuti & McGregor, 2015; Hein, 2019).

To assist this strategy, Indonesia has actively reformed their forest governance regime through three policies. Beginning in 2007, Indonesia instituted a new subnational forest management category meant to address the until-then-disregarded reality of multiple land uses and users present in Indonesia's forests. Developed in collaboration

with the German government (Rzepka, 2010), these Forest Management Units (FMUs), or *Kesatuan Pengelolaan Hutan* (KPH), aim to advance "sustainable forest management" (GIZ, 2015, p. 3) by coordinating across officially-distinct conservation, protection, and production land uses (GIZ, 2015; Ministry of Forestry, 2013).

Housed at the provincial level, FMUs are seen as the foundation of Indonesia's forest governance reform and essential for advancing its national REDD+ strategy (GIZ, 2015; Ministry of Forestry, 2013). The 2007 UNFCCC Conference of the Parties (COP) in Bali, which established what would later in 2010 become REDD+ (Olander et al., 2012), notably devoted substantial effort to their creation (Bae et al., 2014). The KPH government offices that establish and administer FMUs are also unique in Indonesia's history as the only government agency with an explicit mandate to engage local communities and mediate disputes between government, private, and community actors (L. Fisher et al., 2017). Since 2012, 600 FMUs cover Indonesia's 130.68 million hectares of National Forest Estate (GIZ, 2015) across 28 out of 33 provinces (Bae et al., 2014).

Despite the substantial progress FMUs represent by acknowledging the multi-stakeholder nature of Indonesian forests, governmental and non-governmental actors argue the ongoing presence of overlapping tenurial claims and contradictory maps impede the implementation of REDD+ and the pursuit of a green economy in Indonesia (Z. R. Anderson et al., 2016; Astuti & McGregor, 2015; Jagger et al., 2014; Li, 2016; Myers et al., 2016). Instead, what is needed, according to them, is tenurial harmony and stakeholder agreement on existing boundaries.

The desire to harmonize tenure boundaries and relationships across community, concessionary, and government stakeholders perhaps is captured most prominently in the

phrase "Clean and Clear." Narrowly referring to the 2015 "Clean and Clear" mining certification review process (Atteridge et al., 2018), the phrase is more widely used as shorthand by state and non-state actors to describe their ideal image of resource and land tenure. A national-level conservation practitioner explained: "*Clean and Clear*[17] is certainty, clarity of land use status." A conservation practitioner connected to the national implementation of REDD+ contended that such clarity and certainty is important because without "Clean and Clear" assurances regarding land tenure boundaries, Indonesia cannot receive the agreed-upon REDD+ funding from international donors like Norway. "*That's the main problem*," he said.

To facilitate this tenurial clarity, in 2010 Indonesia announced the One Map Initiative (OMI) to nationally resolve competing governmental, concessionary, and community land claims. As Astuti and McGregor (2015, p. 2287) argue:

> The biggest challenge for the green economy in Indonesia is to transform the messiness of forest governance and produce a 'governable space' for international carbon investment. Through the execution of OMI, REDD+ proponents have sought to bring clarity to confusion over forest land use and allocation.

National-level NGO practitioners confirmed this, with one connected to OMI's design reflecting that its goal is to create one "true" map by "synchronizing and harmonizing boundaries of all entities." OMI, he noted, is meant "to tackle all the land, land use, land government issues once and for all," so that afterwards Indonesia will "be able to arrive at the situation whereby there is no land issue," no tenure contestations or conflicts, remaining. Much like the KPH mandate to work directly with local communities and mediate conflict, the OMI practitioner similarly emphasized the need for "inclusiveness"

[17] Interviews for this article were conducted variously in Indonesian and English. Explicit code-switching from Indonesian to English by interview participants is signified by *italics.*

and subnational stakeholder engagement. "It has to be done," he said, "collaboratively with everyone. Who is everyone? Everyone who wants a certain issue to be resolved."

Another way this emphasis on inclusive stakeholder engagement has been pursued in Indonesian forest governance is through Agrarian Reform and Social Forestry policies (*Reforma Agraria dan Perhutanan Sosial* or RAPS), with the Indonesian government pledging to utilize these mechanisms to devolve nearly 22 million hectares of land to local communities (Resosudarmo et al., 2019). Looking specifically at the Social Forestry commitments, these efforts would expand the proportion of National Forest Estate under partial community control from the current 1.1 million hectares (or less than 1% of the Forest Estate) to 12.7 million hectares (or over 10% of the Forest Estate) (M. R. Fisher et al., 2018). Granting communities diverse mixtures of use, access, or management rights through Social Forestry agreements is seen as a novel attempt in Indonesian forest governance to empower communities as rights-holders and increase their tenure security (Bong, et al. 2019; M. R. Fisher et al., 2018; Moeliono et al., 2017). Given the centrality of both tenure reform and conflict resolution to REDD+ broadly and Indonesian forest governance specifically, such agreements are also promoted as an avenue to reduce conflict, advance REDD+, and enable substantive community co-benefits (Akiefnawati et al., 2010; Saito-Jensen et al., 2015; van Noordwijk, 2020; Wong et al., 2016).

Taken together these three forest governance reforms (FMUs, OMI, and RAPS) promote a national vision of forest governance that aligns with Indonesia's REDD+ agenda and advances sustainable forest management, harmonized tenure boundaries, and increased community rights. Put in conversation with each other, they also highlight a

shared emphasis on spatial planning, tenurial reform, stakeholder inclusion, and conflict resolution. Building on these findings, the following section uses the Berau Forest Carbon Program as a case study to empirically document how REDD+ and green development find form and reinforce each other through a subnational landscape approach.

Berau Forest Carbon Program: A REDD+ project in support of green growth

East Kalimantan holds some of the largest areas of remaining rainforest in Indonesia and notably high levels of biological diversity (BRWG, 2011; TNC, n.d.). It is also the third largest emitter of greenhouse gases in Indonesia, with 73% of emissions coming from the forestry and agriculture sectors (DDPI, 2011). In 2008, East Kalimantan's government started a REDD+ Working Group to address this, and in 2009 its governor outlined a plan to make East Kalimantan a "green" province (BRWG, 2011; DDPI, 2011). The "Kaltim Green" plan aims to implement a low emissions development agenda that balances economic development and environmental concerns (BRWG, 2011). The intimate connection between REDD+ aspirations and economic goals is clearly seen in the province's official sustainable development plan that outlines strategies across economic sectors – including forestry, agriculture, palm oil, and coal – and districts, from the highest contributing to carbon emissions (Kutai Kartanegara) to the lowest (Panjam Paser Utara) (DDPI, 2011). This green development commitment was only strengthened when East Kalimantan was designated a pilot province for the national Green Growth Program in 2013 (Z. R. Anderson et al., 2016).

Spanning 13 subdistricts, 107 villages, and over 2.2 million hectares, Berau district has emerged as a focal region in East Kalimantan's green agenda (BRWG, 2011). Called "the frontline of Borneo's deforestation frontier" (Venter et al., 2013, p. 117), Berau remains 75% forested; however, its economy is dominated by resource concessionaires, with 40% of GDP coming from coal mining and another 30% coming from forestry (BRWG, 2011). This dominance is importantly mirrored in the proportion of Berau's land area dedicated to concessionary activities, whether 52% for timber, 18% for mining, or 14% for oil palm (BRWG, n.d.), all of which helps explain its sizable proportion of East Kalimantan's greenhouse gas emissions (8.5%) (DDPI, 2011) and why it has held sustained international conservation interest since the 1990s (Fletcher et al., 2019; Obidzinski, 2003; Sist et al., 2003).

The international conservation NGO, The Nature Conservancy (TNC), began working in Berau in the early 2000s. Focusing first on orangutan habitat conservation and protected forest management in interior watersheds, they began discussions with the district government of Berau in 2008 about jointly developing a low emissions development program in the district. In June 2009, the resulting Berau Forest Carbon Program (BFCP) was designated a district-level REDD+ program, extending across the entirety of Berau. Primarily funded through an American debt-for-nature swap (Sheikh, 2018), the BFCP is Indonesia's first REDD+ program designed at the landscape scale and a model for advancing "green growth" in East Kalimantan and beyond (Z. R. Anderson et al., 2016; Hartanto et al., n.d.; Hovani et al., 2018; Venter et al., 2013).

Grounded in ecoregional conservation planning (TNC, n.d.), TNC frames the BFCP as a "sustainable landscapes" agenda that seeks to unite ecological conservation

and existing development efforts to enhance economic prosperity and human well-being while mitigating fundamental drivers of forest loss (Wongbusarakum et al., 2014). One international-level TNC practitioner reflected that efforts like the BFCP illustrate a "move towards more landscape-based approaches…[towards] truly collaborative conservation and natural resource management projects." Part of this collaborative approach, she noted, is recognizing the scalar drivers of landscape change and thus the fundamental connection between conservation and development, that the BFCP "has to do conservation, but it has to do with economic development, it has to do with big sectors like palm oil and timber." It suggests, she said, that the central question is: "'How do we shift to a fundamentally different development trajectory for the district of Berau and the province of East Kalimantan?'" and "'What does this look like at a jurisdictional scale?'"

According to TNC practitioners, their strategy relies on "strengthening approaches to district spatial planning, mid-term development planning, and the establishment of forest management institutions" (Hovani et al., 2018, p. 1). This focus is seen in practice with the emphasis placed on Berau's four FMUs, with its largest one (West Berau) acting as both a model FMU for East Kalimantan and a pillar of Berau's REDD+ strategy (BRWG, n.d.). Social Forestry has similarly been prioritized by Berau's coordinating KPH agency and TNC (Hartanto et al., n.d.), with 10 Social Forestry agreements covering 69,447 hectares already certified by the KPH agency and an additional 13 agreements planned for the West Berau FMU (KPH 2019 data).

Most importantly, this focus on spatial planning and tenurial reform is also seen in the promotion of village mid-term development plans, or what are called RPJM (*Rencana Pembangunan Jangka Menengah*). Created for six-year durations, they are considered a

central component of unified Indonesian spatial planning and are required for communities to have if they want to receive annual development funding. A provincial-level TNC practitioner argued for their value in improving social equity as well:

> The biggest problem for this nation is that villages don't have plans, so if suddenly around the village there are timber concessions, there is oil palm, there is coal, then those who benefit tend to be the elites, whether the village head or the customary head. When they have a plan then they position these companies as resources, as alliances, as partners, as partners that can be used in the village development process. Without planning, they could never do that.

Together these examples align with the national-level forest governance policies elucidated above and their shared emphasis on spatial planning and tenurial reform. This final quote, however, also emphasizes the inclusive benefit of coordination between community and concessionary actors as well.

Berau's KPH coordinator explained that the BFCP can actually be considered "a partnership program," between the national government, the district, civil society organizations, and companies. A national-level GIZ practitioner concurred with its collaborative nature, using a plural pronoun to reference the BFCP: "They, in the BFCP, there are NGOs, there are local community representatives, there are, for example, [representatives] from the government and others. *Multi-stakeholders* are here." He continued:

> As for BFCP, if I look at it, [the question] is how to manage the program in a synergic manner by involving stakeholders...when this multi-stakeholder approach is a challenge in itself. How to build synergy, then build *sharing resources*, then build *common visions*, that is a challenge in itself.

To facilitate this stakeholder inclusion – to build this synergy, share resources, and develop common visions – TNC practitioners in Indonesia created SIGAP, a community engagement protocol, whose acronym stands for *Aksi Inspiratif Warga untuk*

Perubahan, or "Communities Inspiring Action for Change." As one SIGAP creator explained:

> One of the points of the BFCP's mission is to benefit communities, so how can we at the jurisdictional scale make Berau even better in the context of this carbon program? That is the mission: that there will be around 5,000 people whose lives will be greatly improved. To translate that mission – that communities will have a better life – we use the SIGAP approach.

In the following two sections, I will ethnographically trace SIGAP's evolution from a community engagement protocol to a multi-stakeholder platform. Originally designed by TNC to align with REDD+ social safeguards and facilitate village-level involvement in the BFCP (Hartanto et al., 2014), SIGAP's mandate has since expanded to coordinate district-wide land use planning and village development. Together these sections will show how landscape-scale and rights-based agendas are *co-produced* within the BFCP.

The concept of co-production emphasizes the mutually-supportive relationship between science and society: how each shapes, and is shaped by, the other (Jasanoff, 1996, 2004). Recognizing that knowledge is produced in particular social contexts and that that resulting knowledge in turn influences the order of society, scholars argue that they need to be studied together. This enables more explicit attention to the constructed boundaries between them (Wehrens, 2014) and how power and expertise interact, including "how new objects and phenomena come into existence, how controversies are created and resolved, how knowledge becomes stabilised, and how science and technology are made legitimate and meaningful" (Hallberg & Kullenberg, 2019, p. 43). Wehrens (2014, p. 546) suggests that a focus on co-production can be especially relevant for the study of "structural forms of collaboration," such as SIGAP, where questions of authority and inclusivity collide. "Co-production," Miller and Wyborn (2020, p. 90)

reflect, "is never just a science project; it is always also a political project, a project in ordering the world."

Seeing landscape-scale and rights-based agendas as co-produced helps reveal the recursive relationships between them and document not only how landscape approaches are *made* in certain places, but the role of rights-based instruments in doing that. In particular, it helps answer two questions: How does SIGAP interact with the shared green growth imperatives of Indonesian forest governance and the BFCP's jurisdictional approach? And what rights-based considerations might be elided or obscured in the process?

SIGAP: A rights-based protocol designed for a landscape approach

TNC's two decades of work in Berau is notable as their first terrestrial conservation effort in Indonesia outside formally protected areas. Despite this, their initial work there paid little sustained attention to the local communities, focusing instead on species habitat conservation and ecoregional planning. Based on this experience, as well as TNC's earlier efforts in Sulawesi's Lore Lindu National Park, in 2010 a small group of TNC practitioners began developing an explicitly community-centered framework for the Berau Forest Carbon Program. As one SIGAP developer put it: "Over time…for the Indonesian team in TNC, it [became] very obvious that if you want to try to conserve, and if you want to try to protect, a certain landscape or a certain piece of forest, you have to engage the community."

Beginning in two Berau villages – Merabu and Long Duhung – this group drew on asset-based community development, in which the focus is on communities' *potential*

rather than their problems (Mathie & Cunningham, 2003, 2005), to iteratively develop the protocol that would become SIGAP-REDD+ (Hartanto et al., 2014). Designed to be implemented over a series of months and years by a facilitator who lives and works with a single village, SIGAP-REDD+ consists of seven stages and corresponding activities – from building trust and rapport to identifying community strengths and natural assets to supporting community land use planning. Across these stages, facilitators are asked to focus on three activities: 1) village emissions mitigation and natural resource management, 2) economic development and alternative livelihood promotion, and 3) strengthening village capacity and governance conditions (Hartanto et al., 2014).

Through this participatory process, SIGAP-REDD+ is considered, in the words of one international TNC practitioner, as "how you get really practical, in terms of implementing rights-based approaches on the ground." At the same time, its attention to the village level led TNC's provincial-level REDD+ safeguard specialist to call it "one of the most complete safeguard approaches" for community REDD+ work. Seeing SIGAP as a rights-based approach, however, raises the question of what it means to be designed for a jurisdictional REDD+ program like the BFCP.

Central to the BFCP's success is emissions reduction across the entire district. One national-level practitioner explained this challenge as one of scale: "In my opinion, REDD will be successful if the approach is not a site approach, but a landscape approach. That what is done in Long Duhung, what is done in Merabu, will not be helpful if in some other villages there is excessive deforestation also." This helps explain why TNC replicated SIGAP-REDD+ across an additional 24 villages in Berau with assistance from sub-contracted Indonesian NGOs. Indeed, TNC practitioners have

written that with "a total of 107 villages in Berau District, The Nature Conservancy developed this framework with the challenge of scale in mind" (Hartanto et al., n.d., p. 10).

The previous three sections demonstrated a clear connection between ecomodernism, green development, and REDD+ from the global to subnational level and a complementary Indonesian policy focus on spatial planning, tenurial reform, stakeholder inclusion, and conflict resolution. In this light, SIGAP's explicit attention to community engagement aligns with this emphasis on stakeholder inclusion. However, it is its shared support of spatial planning, tenurial reform, and conflict resolution that demonstrates SIGAP's fundamental role in East Kalimantan's green growth agenda and solidifies the argument that it is a rights-based instrument designed for a landscape approach.

In the words of a provincial-level TNC practitioner, SIGAP is "actually a *planning tool*, a village planning tool that involves men, women, young people, to formulate medium-term and long-term village plans." This point was echoed by the head of Berau's KPH agency who similarly saw SIGAP as a way of "developing landscape use planning." One way SIGAP enables this is by supporting village-level efforts to produce RPJMs, the required six-year midterm development plans. Using participatory visioning methods, such as three-dimensional representations of village territories, as well as many long meetings late into the night with village officials, SIGAP facilitators help communities navigate and draft the required documentation for formal village governance and land use planning. A national-level TNC practitioner reflected: "That's what we really help with SIGAP."

SIGAP's emphasis on spatial planning, however, is not only meant to be, in the words of this same national-level practitioner, "more participative" than such interventions historically have been, it is also meant to help empower and improve villages' capacity for development, whether by encouraging more intensive agriculture or promoting markets for ecotourism or handicrafts. A district-level TNC practitioner explained that to do this SIGAP facilitators work to include SIGAP's primary goals of mitigation, alternative livelihoods, and capacity building into villages' RPJM plans:

> That's why we hope [the SIGAP] program will be included in the RPJM. It should be here. So hopefully in the RPJM there are activities to carry out mitigation; there are also activities for the economy; there are activities for training. Do not let the budget just help the physical, just infrastructure, is just for making houses…not just about health. See how they can grow crops well. If yesterday the yield in one year was one ton, how could it increase to two tons? Like that. I ask for it here [in the RPJM].

Community land use planning in Berau, however, requires considering not only the RPJM, but mechanisms for tenurial reform such as Social Forestry as well. According to a district-level TNC practitioner, this is because village development budgets provided by the district government cannot be used in areas designated as National Forest Estate. By advancing Social Forestry schemes with neighboring timber concessions, SIGAP can ostensibly help communities gain particular rights of forest access, use, and management, and enable designated portions of their budget to be applied to the delineated Social Forestry areas. Scholars have also critiqued such schemes –based on legal permits granted by the state and often pursued through partnerships with concessionary actors – for simplifying community tenure systems, legitimizing governmental and concessionary claims, and raising the question of whose

interests they really serve (Bong et al., 2019; Felker et al., 2017; M. R. Fisher et al., 2018; Moeliono et al., 2017).

When asked if there is a relationship between SIGAP and Social Forestry, TNC's provincial-level safeguards specialist said, "Very much." This is reiterated in conversations from the national to the village level, with one district-level TNC practitioner connecting the presence of community-managed areas to the potential for increased economic opportunities, and others offering that Social Forestry can help SIGAP's impacts get "[beyond] the local level" and contribute to conservation and climate change action at scale (Hartanto et al., n.d., p. 10).

Advancing Social Forestry in fact is arguably central to SIGAP's purpose. Indeed, TNC's safeguard specialist cast Social Forestry as a primary method of advancing REDD+ at the village level. "What is the goal?" the specialist rhetorically asked regarding SIGAP. "To minimize conflict. To mediate. It is a middle way to minimize conflict and recognize community rights." Altogether, with a policy-attuned emphasis on spatial planning, tenurial reform, stakeholder inclusion, and conflict resolution, SIGAP – beyond its alignment with REDD+ safeguards and participatory conservation – is a clear tool of landscape-scale governance and green development. In many ways, however, the previous comment championing a "middle way" between minimizing conflict and advancing community rights is also the clearest distillation of the ecomodernist paradox at the heart of SIGAP.

Previous sections have demonstrated the ecomodernist underpinnings of landscape approaches, REDD+ policy, and Indonesia's green development agenda, whether seen in phrases such as "Clean and Clear," the role of KPH agencies in

navigating and mediating relationships between concessionary and community land users, or the pursuit of a unifying national tenure map through OMI. Across all these examples, the ultimate goal is tenurial clarity and stakeholder harmony. Recognizing the political-economic power of concessionary actors within such an environmental governance context, however, highlights how this emphasis on tenurial and stakeholder harmony too often can obscure an inherent bias in such efforts towards the status quo. In an extractive regime like Indonesia, and its expressions in East Kalimantan and Berau, this status quo can reinforce the outsized power of state and concessionary actors at the expense of local communities.

This reinforcement of the status quo and inherent bias towards concessionary actors is in fact visible in the BFCP. TNC's approach in Berau has been described as not only "market-based" but, crucially, "non-confrontational" (Fletcher et al., 2019, p. 1083). Fletcher, et al. (2019, p. 1083) reflect that this stance has centered "the priorities and sensitivities of the local government" and shaped environmental governance throughout the district. On the one hand, this has meant that the BFCP has emphasized matters of forest governance and local capacity building over saleable carbon credits (Fletcher et al., 2019). It has also meant an active engagement with concessionary actors and the attempt to promote the voluntary pursuit of activities like reduced-impact logging and sustainable palm oil practices by those actor groups. This ethic of inclusion towards concessionary actors and the desire for harmony with them was communicated to me during a workshop by a provincial-level TNC practitioner, who explained that TNC's strategy in Berau, and its southern neighbor Wehea (East Kutai), is dependent on them

not being *frontal*, or confrontational, with oil palm companies and other concessionaires, bringing his two fists together to clearly make the point.

The inherent bias towards the political-economic status quo in SIGAP's facilitation of green growth and landscape governance can also be seen in the disproportionate burden of change it places on communities. In particular, SIGAP has been described as "an approach to community engagement and stakeholder participation based in neoliberal biopolitics" (Fletcher et al., 2019, p. 1082). This can be clearly seen in the emissions mitigation and alternative livelihood strategies championed by SIGAP practitioners, whether the promotion of market-based agroforestry activities, including household cacao, rubber, or coffee gardens; NTFP-based handicrafts businesses; or ecotourism.

The promotion of neoliberal conservation activities through the SIGAP protocol comes into particular focus through the terms used to describe its process and goals. Perhaps most central to SIGAP's identity is its shift away from negative framings of community "problems" to rather positive framings of community "strengths" or "assets." These assets or strengths, however, were often framed through the widely-used, indeed ubiquitous, concept of *potensi* or "potential" in English. As one village-level SIGAP practitioner reflected: "Potential is many things." When asked to define it, a national-level founder of SIGAP responded: "Social capital, financial, *resource*, natural resources, that is what we call potential." Such an answer, ranging from human capital to natural capital and the spaces between, was common across SIGAP governance levels and ultimately helps orient both the neoliberal nature of SIGAP and its connection to long-standing community development and sustainable livelihoods discourse and practice

(Mathie & Cunningham, 2003, 2005; Scoones, 1998). As a district-level SIGAP coordinator reflected, "In fact, SIGAP starts from that potential, right? They [the communities] hope as to dream of their existing potential." A national-level TNC practitioner reiterated this centrality in SIGAP, pointing out how spatial planning can help coordinate alternative livelihoods and new markets:

> …it is definitely very important to do, because usually so far they don't have skills, they don't have the capacity…*regarding planning*. People need to facilitate the process by making a map: "What is the potential here?" "It is usual to harvest honey how many times a year?" "But I don't have a market, it's difficult to be accessed for market." That means the village head has to provide a market to be able to sell the honey, right? Now that goes into village planning. For example, building a workshop or building a gallery is outlined. The SIGAP approach is what is used.

In addition to "potential," the neoliberal nature of SIGAP was similarly captured in the desire for communities to be "creative" and "entrepreneurial." Creativity was seen as crucial for SIGAP communities to develop their potential and make real their dreams. At a 2017 workshop to introduce local communities to SIGAP Sejahtera, an NGO practitioner that originally helped TNC develop SIGAP explained that SIGAP is meant to advance the idea that "I am a creative person" and that "my village is rich" for participating communities. It was implicitly understood that he meant rich iwith exploitative potential. Likewise, the previously mentioned SIGAP founder offered a question to illustrate what it means for a community to be creative: "How can they be creative to make a tourist spot?" When discussing one model SIGAP village's desire to pursue handicrafts, he noted: "That is what they define as creative. So, what is in their village, the potential that will be cultivated further." Such efforts notably center individuals, and personal responsibility, as the units and impetus of change (Wacquant, 2012).

Arguably the most visible example of how SIGAP reinforces and advances a neoliberal logic in the Berau Forest Carbon Program is through the performance-based agreements TNC requires from participating villages. These agreements promote emissions mitigation through reducing the number of hectares cultivated for swidden rice agriculture. A district-level SIGAP facilitator explained how SIGAP's three primary goals shape the content of all performance-based agreements:

> Within the performance-based incentives, there must be three elements included: first, mitigation activities; community well-being improvement activities; and enabling condition activities. Mitigation is the most emphasized. In order to achieve this mitigation target, the community must reduce its swidden agriculture or limit it.

The SIGAP manual reiterates limiting swidden agriculture and its expansion as the central focus for mitigation, calling it "a commitment to restrict swidden agriculture so as to reduce pressures on forests" (Hartanto et al., 2014, p. 140). Looking at multiple such performance-based incentive agreements, the language stipulates that: "As a form of community commitment to participate in conserving forest resources," communities "will not open new land for swidden both inside and outside" of their territories, with an exception for new families that do not possess existing rice fields.

This emphasis on reducing community shifting rice cultivation points not only to the BFCP's neoliberal logic in its emphasis on local-level livelihood change to reduce carbon emissions, but also the ecomodernism underpinning Indonesia's green growth ambitions and TNC's global "land sparing" conservation agenda. Looking specifically at TNC's efforts with the BFCP, Thaler (2017, p. 234) argues that "forest governance has coalesced around land sparing swidden control because compensated reductions in

swidden can reconcile community livelihoods with industrial forestry and government development priorities."

SIGAP's emphasis on swidden reduction, however, also harkens back to the long history found throughout Southeast Asia of vilifying practices of shifting cultivation (derogatorily known as "slash-and-burn" agriculture) and displacing blame for deforestation and environmental degradation onto local communities (Acciaioli & Afiff, 2018; Dove, 1983; Dressler & Roth, 2011; Fox et al., 2009; Scott, 1998). Given this, it is perhaps no surprise that the SIGAP requirement for communities to reduce their swidden activities has provoked confusion, frustration, and fear among many participating SIGAP villages. An elder in one of TNC's model SIGAP villages confirmed this concern: "We feel frustrated, because their system limits swidden...with agreements that do not bring benefits for the community. [They] are harmful. Because it is said that [our village] is an exceptional village. Where is the exceptionality? There isn't, yeah?" As Thaler and Anandi (2017, p. 1067) note:

> The concentration of forest governance on swidden systems has had ambivalent effects… developing village land management and livelihood activities at a cost of temporary increases in swidden clearing and with minimal impact on larger scale deforestation for industrial land uses such as oil palm and tree fiber plantations, and coal mining.

Taken together, this section illustrates how SIGAP – whether through its alignment with RPJMs, promotion of Social Forestry arrangements, or economic incentivization for land use change and swidden reduction – is a community engagement protocol designed for a landscape approach. By tracing the Berau Forest Carbon Program's landscape-scale focus, from international ecomodernist and green development discourses through national, subnational, and village-level policies and

practices, I show how landscape approaches are *produced* in particular places and political economic contexts. At the same time, this analysis helps visualize how rights-based instruments like SIGAP can themselves facilitate landscape approaches both discursively and in practice, translating the BFCP's REDD+ and East Kalimantan's green growth agenda from the subnational to the village level. This is what is meant by co-production: the imperatives of landscape approaches have shaped SIGAP at the same time as SIGAP brings into being the BFCP and its green development agenda.

By centering change around community actors' actions and emphasizing stakeholder harmony and conflict resolution, SIGAP also highlights a fundamental tension between rights-based approaches and projects of environmental governance. In this light, SIGAP is not merely a mechanism for community engagement or safeguard protection, but rather a "technology of power" designed to shape individuals' conduct, govern their range of action, and ultimately align environmental subjects with the BFCP's REDD+ goals (Agrawal, 2005; M. Dean, 1996; Foucault, 1980; Li, 2007; Milne et al., 2019). The example of SIGAP illuminates what Foucault calls the "capillary" nature of power, where – rather than residing in any single, central location – power "reaches into the very grain of individuals, touches their bodies and inserts itself into their actions and attitudes, their discourses, learning processes and everyday lives" (Foucault, 1980, pp. 38–39). Power in this way is diffuse and extensive, circulating amongst individuals, and focused not on *domination* but rather *discipline*.

Foucault reflects that such power can be channeled by actors through myriad avenues, including "methods of observation, techniques of registration, procedures for investigation and research, [and] apparatuses of control" (Foucault, 1980, p. 102).

SIGAP contains facets of all of these, and its replication across dozens of villages and diverse cultural and ecological contexts points to its role not merely as a consciously-designed tool of landscape governance but also one that enacts a kind of capillary landscape governmentality, creating and coordinating REDD+- and green growth-aligned subjects at an explicitly landscape scale.

This function of landscape governmentality was perhaps captured most vividly at the previously-mentioned workshop I attended in the fall of 2017. This event was held to launch a new iteration of SIGAP to simultaneously be pursued by the Berau district government in all 107 villages under the name "SIGAP Sejahtera," with *sejahtera* translating as "prosperity." Bringing together community and NGO representatives from dozens of villages, this event unveiled a SIGAP social media application, one meant to be used within and across area communities and facilitating NGOs.

Sitting in the ballroom of one of Berau's most expensive hotels, amidst rows of people in strikingly pink chairs, my eye continued to be drawn to the largest object in the room. Mounted on the left-most wall was an enormous banner, or *spandok*, displaying an artistic rendition of Berau and SIGAP's role in it. Above short descriptions of SIGAP's seven community engagement steps, the banner depicted a Berau full of diverse communities, habitats, and livelihoods connected by a long, winding road, itself a compelling metaphor for SIGAP: a mechanism designed and built to traverse this landscape, bring development, and unite its myriad peoples.

In the final section below, I will show how the shift in SIGAP from a field-based community engagement protocol to a multi-stakeholder social media application holds valuable lessons for conservation practice. In particular, it illustrates how rights-based

mechanisms can change alongside the shifting goals of conservation projects such as the BFCP. It highlights the diverse kinds of political work such rights-based mechanisms can do, from marginalizing customary livelihoods and reinforcing existing power structures to silencing critique around such inequities. Ultimately, it presents a valuable case study for thinking through the dynamic co-production of rights-based and landscape-scale agendas and what that might mean for the promotion or diminishment of community empowerment and rights.

The SIGAP app: A multi-stakeholder platform built for "harmonious" green growth

The previous section emphasized SIGAP's beginnings as a community engagement protocol grounded in asset-based community development. Designed as a REDD+ safeguards framework, SIGAP was developed to advance participatory community development and sustainable forest management in service of Indonesia's REDD+ goals. While touted as a rights-based approach, however, it also revealed itself to translate green development agendas from the global to the local level and act as a landscape-scale technology of power, ultimately illustrating how landscape-scale and rights-based agendas are *co-produced* in practice.

Since its development in 2010, however, SIGAP has expanded in form, purpose, and governance structure. In particular, since 2017, TNC has pursued a partnership with the Berau district government to develop SIGAP Sejahtera for village land use planning, as well as to further encourage Social Forestry arrangements and concessionary conflict resolution across the entire district of Berau. To do this, TNC has complemented their seven-stage, village-based protocol with a social media application to be utilized by local

communities, NGO facilitators, and Forestry department partners. TNC's decision to scale out SIGAP's usage to Berau's 100+ villages, expand its purpose to include multi-stakeholder communication, and shift its governance structure to more explicit district government control presents a clear measure of both SIGAP's landscape-scale ambitions and its perceived effectiveness as a tool of environmental governance and governmentality.

Indeed, according to multiple TNC practitioners, SIGAP's ability to facilitate community land-use planning through RPJM development was a crucial selling point for its expansion to the district level. In the words of a district-level TNC staff member, Berau's governor adopted it "because he believed that SIGAP will help him" implement RPJMs "on the ground." A founder of SIGAP made a similar point while describing his meeting with the governor, helpfully tying the myriad goals of SIGAP together:

> I gave a presentation to the district head. So, the real challenge in the village is what we are aiming for. For example, SIGAP is about governance in the village. How does the village administration run well, village planning go well, the management of village financial fund allocation runs, and increasing government capacity. This is what SIGAP is targeting in the context of governance.
>
> In the context of utilizing natural resources, it is…the boundary arrangement, the certainty of the village area. Then the second is the area managed by the community through Social Forestry. Then, there is the understanding of the natural potential, or the community. Residents are very aware of their village. In economic institutions, we are targeting their business entities, so that we can increase understanding of how to manage business entities, continue to improve entrepreneurial attitudes, continue to determine the type of business and business management. This is what we are aiming for.

This quote succinctly points to the interaction and reinforcement in SIGAP between spatial planning, stakeholder inclusion, tenurial reform, and neoliberal conservation. It also highlights the importance of village tenure clarity and the role of Social Forestry policies, together aligning with Indonesia's forest governance regime and national "Clean

and Clear" ambitions. Lastly, it offers a glimpse into the evolving hybrid governance arrangement between TNC and the Berau district government.

The SIGAP social media app has been likened to Instagram and Facebook in functionality and use by TNC practitioners. They argued that it holds diverse avenues for promoting stakeholder engagement, communication, and transparency across community, civil society, and governmental actor groups. These avenues include its ability to record programmatic or budgetary progress; document activities in text, photographs, or video; share multimedia across users; visualize the app's use through an interactive map; and facilitate communication through preloaded explanatory videos, topical discussion boards, and an interactive chat function. One SIGAP developer described how the app can help promote community products for sale, whether local handicrafts or traditionally-foraged honey. He also pointed out how it can enable the sharing of knowledge and ideas between diverse communities across great distances: "You can imagine that in East Kalimantan there are 840 villages. If they use the application, they can network, study, learn from each other without having to visit. This is what we designed SIGAP for."

This explanation makes clear that the function of SIGAP has expanded with its adaptation as a social media app. By emphasizing the need for, and value of, dialogue and knowledge exchange, it stands out as a multi-stakeholder platform as much as a community engagement protocol. While scholars argue that the ability to facilitate communication across stakeholders is essential for the pursuit of landscape-scale governance, in practice multi-stakeholder tools have been critiqued for a lack of transparency regarding power sharing and even the strategic withholding of information or knowledge by certain groups (Clay, 2019; Kamelarczyk & Hall-Smith 2014; Ros-

Tonen et al., 2018). This helps clarify that such platforms are not politically neutral but rather are shaped by individuals' and groups' understanding of the world and their particular agendas (Jasanoff, 2004; Li, 2007; Mosse, 2004). In thinking about the translation of multi-stakeholder platforms into social media apps, this insight has profound implications for considering what content is included or excluded; how such information is presented; and who controls its access, management, and use. The remainder of this chapter will examine these.

The socially- and politically-mediated nature of such social media apps becomes clear with the realization that TNC also owns the SIGAP app and thus all its content, storage, and use. As a creator of SIGAP explained, this means that they can monitor the information inputted, such as "what's being posted, what's the topic," so as "to keep track of what [is] happening" in the field. Monitoring the content, he clarified, would enable them to see how topics like livelihoods are being discussed or whether there are differences in use or content based on variables like gender.

One benefit of this, the founder said, is to help the district government more effectively pool information from the 100 villages and have a "dashboard" that will consolidate the tracking of data. An additional benefit is helping TNC determine how much, and how effectively, knowledge and information sharing is happening – whether, in the words of another founder, the "soft touch" and "less intensive" nature of the app "can actually affect change." If the app is enabling cross-community dialogue, this founder reflected, perhaps "you don't actually need very intensive facilitations" such as those performed on the ground currently.

While ease of stakeholder communication and transparency of programmatic progress are persuasive benefits, and the goal of community-driven change over outside facilitation admirable, SIGAP's existing, and evolving, role as a technology of power complicates any simple arguments for the app's use and expansion. Foucault's distinction between "repressive" and "productive" power helps illuminate potential unintended side effects of such efforts. He writes:

> If power were never anything but repressive, if it never did anything but to say no, do you really think one would be brought to obey it? What makes power hold good, what makes it accepted, is simply the fact that it doesn't only weigh on us as a force that says no, but that it traverses and produces things, it induces pleasure, forms knowledge, produces discourse. It needs to be considered as a productive network which runs through the whole social body, much more than as a negative instance whose function is repression. (Foucault, 1980, p. 119)

Much like the adoption of police forces and fiscal administration centuries ago, the SIGAP social media app could prove "much more efficient and much less wasteful" than earlier, clunkier community engagement efforts (Foucault, 1980, p. 119). By giving individuals and communities the ability to govern themselves – to share information, adapt their behavior, promote SIGAP's vision – the social media app enables "a new 'economy' of power" whose effects "circulate in a manner at once continuous, uninterrupted, adapted and 'individualised' throughout the entire social body" (Foucault, 1980, p. 119). It is a kind of power, Foucault writes, that operates "through social production and social service" (Foucault, 1980, p. 125). In this way, the social media app holds the potential to act as both an agent of empowerment, as well as one of self-governance, surveillance, and control.

This "uninterrupted" vision notably has been interrupted in many SIGAP villages by the lack of reliable internet, leaving the designated smartphones often unable to upload

data and instead free for less-intended activities, such as entertaining children. The repercussions of TNC monitoring SIGAP, however, were visible in these same communities as well, with at least one SIGAP facilitator opting to leave his designated smartphone at the district office rather than taking it with him to the village. When asked why, he responded that he did not like the feeling of being tracked by TNC and how that might affect his day-to-day life and work. Indeed, this concern was voiced by multiple practitioners, such as the district-level SIGAP coordinator, Amir, who opened this article with the caution that the application "is very closely watched."

Foucault identifies a paradoxical relationship between visibility, transparency, and power in Jeremy Bentham's concept of the "panopticon," a prison whose circular cells face a central guard, thus creating a system of perceived ever-present surveillance and efficient control. In such a system, Foucault writes:

> There is no need for arms, physical violence, material constraints. Just a gaze. An inspecting gaze, a gaze which each individual under its weight will end by interiorising to the point that he is his own overseer, each individual thus exercising this surveillance over, and against, himself. A superb formula: power exercised continuously and for what turns out to be a minimal cost. (Foucault, 1980, p. 155)

This formula of "power through transparency" and "subjection by 'illumination'" (Foucault, 1980, p. 154) arguably emphasizes a tension within the SIGAP social media app between its "inspecting gaze" and its egalitarian and empowering ethos. This tension mirrors in many ways Bentham's panopticon, whose conception similarly could be traced to the individualism and ideals of the Enlightenment:

> It was the dream of a transparent society, visible and legible in each of its parts, the dream of there no longer existing any zones of darkness, zones established by the privileges of royal power or the prerogatives of some corporation, zones of disorder. It was the dream that each individual, whatever position he occupied, might be able to see the whole of society, that men's hearts should communicate,

> their vision be unobstructed by obstacles, and that opinion of all reign over each. (Foucault, 1980, p. 152)

While the SIGAP social media app has centered transparency and visibility in certain areas, it also has reinforced, through strategic opacity, the asymmetrical power dynamics seen between concessionary and community actors as well. This is addition to monitoring, the application's content is also moderated: "There is control about its content," one founder explained, so that "there isn't discrimination. There isn't hate. There isn't political promotion." In this way, the SIGAP app is meant to be an improvement over the negativity found on other social media platforms: "Imagine," he posited, "if the entire village community follows it, they will be more positive than for example when they look at Facebook."

This emphasis on the positive featured prominently in the 2017 SIGAP Sejahtera workshop mentioned earlier. Amir, while discussing the app and its monitoring, remembered an NGO partner who helped design the app make this very same point during that workshop: "He said that SIGAP is based on strength-based approach, that is based on community strengths. 'Don't think about the negatives, the shortcomings. Just the positives.'" This emphasis on the positive, Amir noted, perhaps explained why a post he tried to submit about land conflicts in the villages where he worked was not allowed. He reflected that in his experience you can only upload "positive things." He recalled one time: "I wanted to convey about the real conditions in the field" but "the tenure conflicts that I wanted to write about were rejected."

This emphasis on regulating content to promote a positive message ultimately raises substantive questions around how certain voices may be excluded from SIGAP's

platform and how underlying conflicts within and between stakeholders obscured. Amir explains his concern about the larger ethic to edit content for positivity:

> I don't agree with it because with that kind of thinking, it will rule out real problems in the field. What about the damaged roads? What about food shortages? Limited land? When we upload it on that app, it will be rejected, Walker. I've tried it, and it couldn't be uploaded. We were told to change the sentence.

A village-level NGO practitioner unaffiliated with SIGAP suggested that two fundamental questions face the SIGAP app and its use: "What is the impact for communities?" and "What is the data for?" Reflecting on the censorship of posts related to tenurial conflict he noted that in Berau, "conservation issues, if they avoid conflict, will not be resolved, because the problem itself is conflict." Amir used the metaphor of medical care to make a similar point, comparing tenurial conflict to a stroke and SIGAP to misapplied headache medication:

> It's like some kind of real pain reliever when people are sick...We have a headache so we are given headache medicine, even though the headache is only an indication that there is a disease in us, it could be that we have a stroke…It is not the source of the problem that wants to be resolved, but only the impact.

Discussing this point back in Jakarta with a national-level TNC practitioner, they affirmed SIGAP's focus on positivity and returned to the fact that SIGAP's ethic of appreciative inquiry was "not problem-based," focusing instead on assets and potential. This emphasis on communities' potential, however, means that SIGAP practitioners "don't talk much about the structural conflicts," he said. In fact, in his mind, the SIGAP protocol itself isn't designed to "find the root of the problem. But instead directly discuss potential." "Appreciative inquiry" he explained, "is interpreted as not talking about conflict, but rather talking about what you want to achieve." Indeed, he reflected, perhaps SIGAP is not meant to resolve such conflicts. Comparing SIGAP to

other participatory rural appraisal approaches, he noted the "atmosphere" is perhaps "happier" with SIGAP, "but is it better? Does it better solve the problem? That's what I doubt too, and it looks like no." He continued: "If the question is, will SIGAP solve the conflict? I don't think so." Before SIGAP can be used, "the conflict must be resolved first." The words of this practitioner suggest then that the elision of tenurial conflict is in many ways a feature, and not a bug, of SIGAP.

Tania Li (2016) writes that "practices of problematization and rendering technical are not separate" (80) and that in fact "[the] identification of a problem is intimately linked to the availability of a solution" (81). One way of seeing SIGAP – whether the community engagement protocol elaborated previously or the social media app examined here – is as a tool developed to "solve" the "problem" of how to effectively pursue green growth at the landscape scale. The SIGAP app in this light is a figurative, and literal, "anti-politics machine" for REDD+ and green growth (Ferguson, 1994), rendering community engagement broadly, and tenurial conflict in particular, apolitical and technical (Li, 2007). "Rendering technical," according to Li (2016, p. 80), "simultaneously involves rendering non-political, [and] closing down contestation, struggle and democratic debate in favor of expert calculation." By closing down contestation in the name of stakeholder harmony, projects can draw in and gain the support of diverse stakeholders, even if such political exclusion can limit projects' ability to improve communities' well-being and in certain circumstances their rights.

The censorship example above illustrates how minimizing the centrality and visibility of tenurial conflict could close down community and practitioner contestation and in so doing both obscure the politics underlying conservation challenges in Berau and

ultimately bolster the political economic status quo and Indonesia's green development agenda. It also arguably exemplifies the same desire for stakeholder harmony and strategy of non-confrontation TNC uses with concessionary actors discussed earlier. Together this shows how the green growth emphasis on conflict resolution can ironically bleed into an ethic of non-confrontation with powerful actors, hindering conflict resolution, potentially silencing contrarian dissent, and ultimately orienting a rights-based mechanism towards "happier" stakeholder engagement rather than the "source" or "root" of stakeholder conflict around land rights in Berau.

Suppressing stakeholder voices and critiques within the SIGAP app raises additional questions regarding accountability, transparency, and justice. These include: What does it mean to censor or edit what certain individuals or stakeholder groups are allowed to say or see within the SIGAP app? What differences in accountability and responsibility might exist if the controlling party is an international NGO like TNC versus the Berau district government? And what damage to community trust is done by not enabling the full, unfiltered political picture of environmental governance to be communicated between and across stakeholders?

All told, this evidence reiterates the co-production of landscape-scale and rights-based agendas, as the desire to scale out SIGAP across the breadth of Berau resulted in its expansion to include a social media component and a corresponding change in its function as a multi-stakeholder platform. In particular, this example showcases the relationship between TNC's desire to monitor the SIGAP app's content, prioritize the positive, and minimize discussion of tenurial conflicts between local communities and resource companies. Despite the legitimate reasons for, and arguable beneficial

outcomes from, the moderation of content, however, I argue that these actions point to particular dangers of designing and adapting rights-based approaches for landscape-scale endeavors and green growth agendas. This includes the potential of social media apps to act as panopticons and tools of governmentality, as well as anti-politics machines that close down contestation and reinforce pre-existing state and concessionary power dynamics. If, as mentioned above by a local practitioner, "the problem itself is conflict" in Berau, and yet SIGAP is not meant to resolve conflict so much as facilitate coexistence, whose rights are being safeguarded through instruments like SIGAP? And whose are not?

Conclusion

In this article, I argue that there is a need to understand how landscape approaches to environmental governance are discursively structured and enacted within national contexts, how rights-based instruments are pursued and enrolled in such approaches, and what that means for the promotion and protection of community rights. In this argument, I follow Foucault, who writes:

> I believe that the manner in which the phenomena, the techniques and the procedures of power enter into play at the most basic levels must be analysed, that the way in which these procedures are displaced, extended and altered must certainly be demonstrated; but above all what must be shown is the manner in which they are invested and annexed by more global phenomena and the subtle fashion in which more general powers or economic interests are able to engage with these technologies that are at once both relatively autonomous of power and act as its infinitesimal elements. (1980, p. 99)

Beginning with the global ecomodernist underpinnings of landscape approaches, I show how a national green growth agenda that emphasizes spatial planning, tenurial reform, stakeholder inclusion, and conflict resolution drives Indonesian forest governance

broadly and Indonesia's first landscape-scale REDD+ project, the Berau Forest Carbon Program, in particular. Tracing this green growth agenda down to the village level, I demonstrate how TNC's rights-based instrument SIGAP enacts and facilitates it both through forest governance policy and as a malleable technology of power.

Notably, this work empirically documents how landscape-scale and rights-based conservation agendas mutually support each other. This co-production highlights both the BFCP and SIGAP as political projects, illuminates the lived practice of landscape approaches and the social orders they create, and illustrates the dynamic potential of rights-based instruments and how they can change alongside the shifting goals of conservation projects like the BFCP. Ultimately, this article presents a valuable case study for thinking through the diverse kinds of work such rights-based instruments can do, from marginalizing customary livelihoods and reinforcing existing power structures to silencing critique around such inequities. It also centers the need for conservationists to recognize rights-based approaches not as technical toolkits but rather governance mechanisms to be considered and navigated appropriately.

According to one SIGAP founder, TNC's ultimate vision is to have SIGAP implemented in 600 villages across their Indonesian terrestrial and marine programs by 2022. There is also talk of expanding SIGAP further to specifically oil palm and mining concession contexts. With such active and potential plans to scale SIGAP across diverse governance regimes and economic sectors, the work presented here holds special relevance, raising crucial questions regarding the design and implementation of rights-based efforts like REDD+ social safeguards, how they are pursued within and through

projects of environmental governance, and what that might mean for the promotion, or diminishment, of community livelihoods, agency, and land rights.

CHAPTER 3

RENDERING CONSENT SCALABLE:

THE POLITICS OF PARTICIPATION AND TRANSLATION IN AN INDONESIAN REDD+ PROJECT[18]

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Abstract

Free, prior, and informed consent (FPIC) is an increasingly central component of rights-based conservation efforts around the globe. While often cast as a mechanism of participatory empowerment, understanding how conservation practitioners perceive and enact rights like FPIC is crucial for understanding whether they are being upheld and how best to safeguard them. Based on 26 months of ethnographic research, I present an empirical study of "the social practice of rights" (Goodale, 2006a, p. 3) in the Berau Forest Carbon Program (BFCP) of East Kalimantan, Indonesia. Analyzing the conceptualization and pursuit of a community engagement protocol, I find that it coexists in multiple forms, whether as a written manual, lived practice, or social media application, with distinct implications for how FPIC is expressed and the work that it does. Tracing the use of this protocol from its pilot stage to its implementation district-wide, I showcase the power relations inherent in FPIC negotiations with local communities; the social and historical contingencies that inform FPIC translations; and how a social media app illuminates the promise and danger of rendering rights like FPIC, and community engagement more broadly, digital and scalable. Ultimately, this research highlights that policy concepts are dynamic and social things, rather than solitary and static, and argues for practitioners to embrace this fact when designing and pursuing rights-based agendas.

Introduction

One afternoon in central Berau, I sat finishing lunch with NGO field staff on their back deck, when our talk turned to community consultation. As the discussion bounced between the care and deliberation needed to introduce an incoming project versus the ease of snapping and posting a picture on social media, a young Indonesian man smiled as he mimed holding a smart phone and joked: "We could take a picture of ourselves right now and call it, 'Disclosure.'" The word "Disclosure" – notably spoken in English instead of Indonesian – referred to the first phase of his NGO's community engagement protocol, which includes the need to gain community consent to begin community-based REDD+ efforts. As we sat outside that afternoon – surrounded by a mosaic of coal mining pits, swidden fields, protected forest, and oil palm plantations – this image of the feigned photograph stayed with me, capturing not only the potential for misuse posed by a social media app when documenting consent but the dangers of simplification for community rights more broadly.

Gaining free, prior, and informed consent, or FPIC, is an increasingly central component of rights-based conservation and development efforts around the globe (Campese et al., 2009; CIHR, 2014; Hickey & Mitlin, 2009). Often cast as a mechanism of empowerment for local communities, it is now a requirement in many state and non-state governance arrangements that communities need to be fully informed, freely without coercion, and prior to a project beginning, about how that project could affect their lives and whether they consent to its pursuit (Dunlap, 2018). While there remain substantial differences in FPIC interpretations – commonly captured in the distinction between consent versus consultation, and whether communities have a right to participate

or a more fundamental right to say “no” (Gover, 2007; McGee, 2009) – there is increasing recognition across the global environmental governance sphere that FPIC is a moral imperative (Kirsch, 2014).

Translating FPIC from policy to practice, however, is never linear and instead raises substantial questions. These include what constitutes “free” and non-coerced consent (Dunlap, 2018); what “prior” consent means given both upfront business investments (Dunlap, 2018) and the moral and pragmatic need for ongoing, adaptive communication (P. Anderson, 2011; Pham et al., 2015); how to measure being fully “informed” amidst possible miscommunication, misunderstanding, or emphases on benefits rather than risks (P. Anderson, 2011; Howell, 2014; Rodríguez-Garavito, 2011); and where exactly the line is between resistance and non-consent (Benjaminsen, 2014). Pre-existing consent or consultation concepts and practices likewise might contradict FPIC guidelines (Barrett & Parker, 2003; Corson, 2012; Hanna & Vanclay, 2013; Howell, 2015), with FPIC itself arguably presupposing a governance hierarchy that places local and Indigenous communities at the bottom of decision-making structures (Dunlap, 2018; Walker et al., 2007).

This literature emphasizes the reality and role of FPIC as a tool of environmental governance to shape people’s conduct and support the legitimacy of outside interventions (Agrawal, 2005; Foucault, 1980; Li, 2007). Centering, however, the politics of translation illuminates “the complexity of policy as institutional practice” and the need to ethnographically examine the "social life of projects, organizations and professionals” and “the perspectives of actors themselves” (Mosse, 2004, p. 6). Grappling with FPIC through the lens of translation requires seeing FPIC not only as a mechanism of

empowerment or one of control and legitimacy, but also as a living concept whose translation within community engagement protocols, across languages, and between actor groups can both "[conceal] multiple meanings" (Mosse, 2004, p. 83) and accomplish multiple things simultaneously. It requires seeing FPIC as situated within what Anna Tsing calls "zones of awkward engagement where words mean something different across a divide even as people agree to speak" (2005, p. xi).

Drawing on 26 months of ethnographic research from 2016 to 2018 – in Washington, D.C., USA (6 months), Jogjakarta (3 months), Jakarta (4 months), and East Kalimantan, Indonesia (13 months) – I argue that understanding how conservation practitioners perceive and enact rights such as FPIC is crucial for understanding whether they are being upheld and how best to safeguard them. Focusing on the Berau Forest Carbon Program (BFCP), a REDD+ project in Berau district, East Kalimantan, I ask: How is FPIC communicated through relevant policy and protocols? How is it translated between conservation practitioners and local communities? And what kinds of work ultimately does FPIC do for environmental governance in Berau?

I begin this paper by describing my research context in Berau and introducing The Nature Conservancy's community engagement protocol, SIGAP, which they developed to promote REDD+ social safeguards. Translated as "agile" in English, SIGAP in this case stands for the not-intuitive acronym, *Aksi Inspiratif Warga untuk Perubahan*, or "Communities Inspiring Action for Change." I then trace SIGAP as a written manual, lived practice, and social media application to demonstrate the diverse forms FPIC can take in a single conservation project and the dynamic ways its interpretation and enactment can influence conservation practice. When captured in documentation like a

contract, FPIC is shown to facilitate community livelihood changes aimed at reducing emissions. Moving across languages and actor groups, however, FPIC is simultaneously a "word in motion" (Gluck & Tsing, 2009), whose meaning is obscured at times in favor of an emphasis on trust-building and elided in others by long-standing forms of state consultation. Lastly, with SIGAP transitioning from civil society to government control in Berau, I build on these findings to show how the development of the SIGAP social media app presents potential benefits and dangers for FPIC, as community engagement is rendered not only digital but scalable. Taken together, this work presents an empirical study of "the social practice of rights" (Goodale, 2006a, p. 3), how multiple translations of FPIC coexist and interact, and what a nonscalable rights-based agenda might mean for conservation practice.

Interviews for this research were conducted in English and Indonesian. At times Indonesian speakers code-switched between Indonesian and English. In those cases, the words spoken in English are indicated by *italics*. With the paper relying on a number of acronyms, I have also included a table defining all acronyms at the end.

Research context

The Berau district of East Kalimantan has held sustained conservation attention from the international community since the early 1990s (Fletcher et al., 2019; Obidzinski, 2003; Sist et al., 2003). Spatially heterogenous, its 13 sub-districts and more than 100 villages span a mountainous interior leading to a karst landscape, mangrove forests, and extensive coastal zone to the east. Long a resource frontier for coal mining, logging, cement production, and oil palm, it remains one of the most forested landscapes of

Kalimantan, with 75% of its 2.2 million hectares still covered (Permana, 2012; Wongbusarakum et al., 2014). It is also home to diverse ethnic groups, including Indigenous Dayak, coastal Bajau, Buginese, Javanese, Indo-Chinese, and local Malay. While these groups practice a range of livelihoods, the majority are largely forest-based, whether subsistence agriculture, shifting cultivation, or hunting, fishing, and foraging (Fletcher et al., 2019; Obidzinski & Andrianto, 2005; Permana, 2012). With its myriad land uses, livelihoods, habitat types, and environmental threats, Berau has been called "a microcosm of Indonesia" (Wongbusarakum et al., 2014, p. 8).

The central conservation actor in Berau today is The Nature Conservancy (TNC). Building off earlier efforts in Central Sulawesi's Lore Lindu National Park, TNC started working in Berau in 2001 with a program focused on orangutan habitat conservation and broader forest management (Anandi et al., 2014; Fletcher et al., 2019; Thaler, 2017). Following the 2007 UN Framework Convention on Climate Change 13th Conference of the Parties (COP 13) in Bali and Indonesia's formal adoption of a REDD+ agenda, TNC established the Berau Forest Carbon Program (BFCP) in 2009 with the Berau district government (Fletcher et al., 2019). A jurisdictional REDD+ project, the BFCP spans the entire territory of Berau and aims to unite climate change mitigation, forest conservation, and sustainable development goals through coordinated land use change and spatial planning in line with national and subnational policy (Fletcher et al., 2019; Thaler, 2017; Wongbusarakum et al., 2014). To advance this program on the ground, TNC has built relationships with, and coordinates between, the district and provincial forestry departments, the German development agency, GIZ, and its bilateral climate change

organization, FORCLIME[19], and diverse NGOs, private industries, and local communities.

To advance this program at the village level, TNC developed the community engagement protocol, SIGAP-REDD+. Designed in consultation with the national NGO, Inspirit, SIGAP-REDD+ focuses on promoting BFCP efforts by drawing explicitly on "asset-based community development" and their ethic of "appreciative inquiry," which focuses on promoting positive community "assets" or "potential" rather than negatively framing interventions around "problems" (Mathie & Cunningham, 2003, 2005). With participatory stages devoted to community visioning, asset identification, and activity development, TNC hopes SIGAP-REDD+ can promote sustainable resource management, integrated village planning, and local support for alternative livelihoods and BFCP efforts (Anandi et al., 2014). Building off an earlier Inspirit iteration[20], the SIGAP protocol aims to achieve this through seven progressive steps, captured in the alliterative English words: Disclosure, Define, Discover, Dream, Design, Delivery, and Drive (Hartanto et al., 2014). The progression of these steps is captured below in Figure 4.

[19] FORCLIME stands for Forest and Climate Change Programme, a joint effort by Germany and Indonesia to promote REDD+ and sustainable forest management in Indonesia.
[20] Inspirit articulated five sequential phases for implementing asset-based community development, using the English language words: Discovery, Dream, Design, Define, and Destiny (https://www.youtube.com/watch?v=ZPsb4sU0ewY)

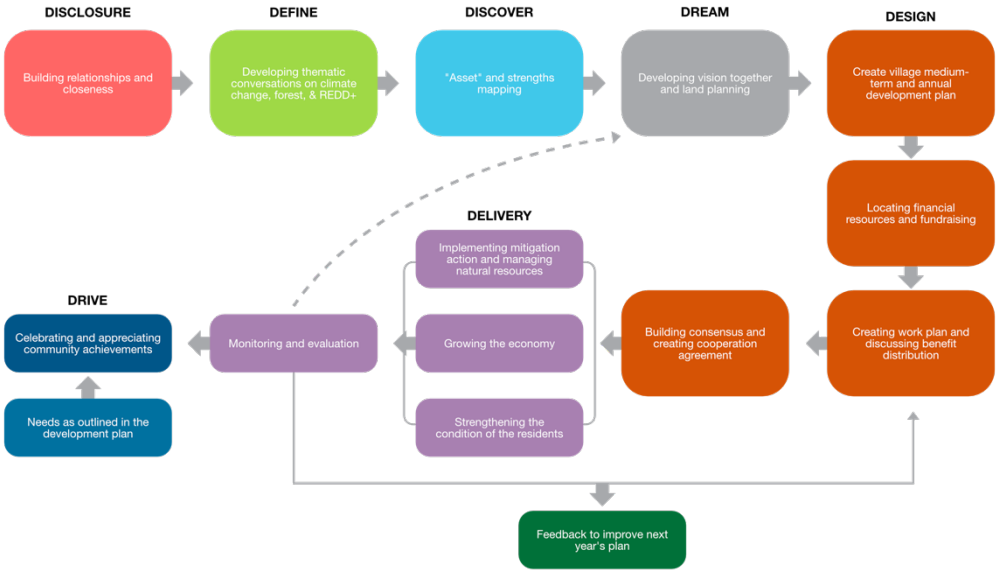

Figure 4. The SIGAP "community engagement framework" (Translated and adapted from Hartanto et al. (2014, p. 19) by W. DePuy and M. Winowatan)

SIGAP is notably designed to align with REDD+ social safeguards, a set of guidelines introduced in the 2010 Cancun Agreements to ameliorate tensions between REDD+ carbon mitigation goals and the need to protect community rights and related co-benefits (UNFCCC, 2010). Social safeguards emphasize the importance of transparent governance, full and effective stakeholder participation, and respecting local and Indigenous rights and knowledge (Aicher, 2014). In particular, the SIGAP manual references the REDD+ Social and Environmental Standards (SES), internationally-recognized parameters that make clear the centrality of FPIC to REDD+ activities, stating [translated to English]: "The REDD + program requires Free, Prior and Informed Consent (FPIC) from indigenous peoples and local communities for all activities that affect their rights to land, territories and natural resources…" (Prayogie S, 2012, pp. 8–9).

Given this, SIGAP requires its facilitating NGOs to obtain FPIC from individual villages prior to the pursuit of REDD+ activities.

As TNC has scaled up SIGAP, however – beginning with two model villages to then 26 others to its implementation district-wide today – the form FPIC assumes and the work it does has expanded and changed, raising essential questions regarding the protection of community rights within dynamic and complex conservation landscapes like Berau. The following sections will trace these changes and engage these questions.

Locating FPIC in SIGAP

As mentioned above, FPIC is explicitly required in SIGAP's protocol, with the manual mentioning it in the same breath as its alignment with REDD+ safeguards, stating: "In developing such strategies and approaches, TNC refers to the principles of the REDD+ Social and Environmental Standards, including obtaining free, prior and informed consent…from communities" (Hartanto et al., 2014, p. 16). FPIC is referenced two other times in the manual, in both cases concerning the negotiation of emissions mitigation contracts with participating communities. Written for an Indonesian-speaking audience, FPIC is translated in the manual as *persetujuan atas dasar informasi di awal tanpa paksaan* or "approval based on prior, non-coerced information." In Indonesian policy circles, this is commonly captured in the acronym, PADIATAPA.

When asked about the relationship of SIGAP to FPIC, TNC practitioners from national to village levels affirmed its inclusion. As one developer of SIGAP noted: "PADIATAPA is the same as SIGAP, actually." A SIGAP facilitator in one of TNC's two model villages concurred: "I think in SIGAP the most important thing is FPIC."

Expanding on this point, she connected FPIC to SIGAP's initial phase of Disclosure: "*Disclosure* has an element of FPIC in it. Communities [asked to participate in SIGAP] have to know who is working there, what the goals are, what the targets are…This means that in *Disclosure* there is FPIC." While this explanation aligns with the FPIC requirement for communities to be "informed" of potential projects' scope and purpose, the question remained of what does FPIC or PADIATAPA actually look like in SIGAP? Using the case of Long Lamcin village and its partnering NGO, Payo-Payo, I describe below the two distinct FPIC phases in SIGAP and the REDD+ mitigation and community development agenda they support.

Sitting in the Payo-Payo field office, the district manager Amir[21] began by explaining that although tasked with overseeing SIGAP's implementation in three replication villages, he actually came in mid-way through the process. In the case of Long Lamcin, SIGAP was started by the previous district manager and village-based facilitator there. Amir reflects that the facilitator spent the first six months using an "ethnographic" method, "kind of hanging out with the community first, getting to know each other," rather than pursuing any specific REDD+-oriented activities. These six months corresponded to SIGAP's preliminary Disclosure phase. Over Skype, the village facilitator echoes this telling, reflecting that PADIATAPA was not attempted until "four or six months after doing *Disclosure*," placing it in the second phase, Define.

This first PADIATAPA, the facilitator noted, was conducted through an open community meeting and formalized the Tropical Forest Conservation Act (TFCA)[22]

[21] All included names are pseudonyms.
[22] The TFCA is a debt-for-nature swap program that provides funding for TNC's Berau Forest Carbon Program and the implementation of SIGAP.

project agreement between Payo-Payo and Long Lamcin community. Amir, discussing the FPIC negotiations, makes a clear reference to the community's "right to say no," which is in many ways the essence of FPIC:

> So there are various contracts that contain items about what we should do, what needs to be done by communities there. Included in them is a point that says: if in the midst of the implementation of the program, the community does not agree with Payo-Payo, it can cancel the PADIATAPA contract, and we would leave from the village, if they do not agree or do not need us anymore.

The second PADIATAPA-based contractual agreement came over a year later during the Design phase, establishing the TFCA-funded Performance-Based Incentive Program with the Lamcin community. This Incentive Program as outlined in SIGAP's manual prioritizes three activities: 1) "Mitigation and natural resource management," 2) "Economic development," and 3) "Strengthening enabling conditions" (Hartanto et al., 2014, pp. 155–156). Amir noted that such agreements are nearly identical across villages[23], including the three Payo-Payo worked in, and when looking at these agreements, it is clear the central focus for emissions mitigation is limiting the expansion of swidden agriculture. A creator of SIGAP and author of the SIGAP manual explains the choice to focus on swidden:

> The challenge we faced was how to manage swidden agriculture, *shifting cultivation*. From our study, according to the literature, they have on average seven rotations. But in fact, sometimes they have more than that. This is what we then tried to build: *clear* agreements that if you want to get involved in these performance-based incentives, you have to be consistent in applying the shifting cultivation seven times sequentially and that it is not regarded as community-owned territory.

[23] The similarity of these contracts can be seen when contrasting the agreement found in the SIGAP manual between TNC and the model village Long Duhung (Hartanto, Yulianto, and Hidayat 2014: 141-142) with the agreement signed between Payo-Payo and Long Lamcin.

Reducing swidden and promoting more sedentary, market-based forms of agriculture has a long history in Southeast Asia as a tool to reinforce state power and manage local populations, whether by national governments (Dove, 1983; Fox et al., 2009; Scott, 1998) or more recently neoliberal conservation (Acciaioli & Afiff, 2018; Dressler & Roth, 2011). Earlier ethnographic research with the Berau Forest Carbon Program points out that FORCLIME[24] originally "identified the main driver of deforestation in Berau between 1990 and 2010 as shifting cultivation and smallholder agriculture" (Fletcher et al., 2019, p. 1083), which led BFCP actors such as TNC to prioritize its reduction as SIGAP's "primary strategy for reducing village-level deforestation" (Thaler, 2017, p. 234).

This emphasis, however, faced substantial pushback from communities. Research by CIFOR in 2012 found villagers uneasy about TNC's intentions, unsure of the purpose of REDD+, and concerned how it all might affect their agricultural practices, forest access, and tenure rights (Anandi et al., 2014). Sipping coffee one afternoon in 2018 with a friend in Lamcin, it was clear that pushback and unease remained still. She explained many community members' concerns over the swidden provision:

> The problem is the thing that they asked…they asked so that the amount of forest cut down is reduced, because according to them if there is too much forest cut down it will damage the flow of the river…Really, the village community is prohibited from cutting the forest, while companies enter? The area we open for swidden is not that much, just however many hectares are possible for swidden. If you are a company, hundreds of kilometers they have to damage, tens of hectares per day can be erased when they cut. That is the situation within their program. It does not make sense, according to villagers. Because it has been how many decades that the village has had knowledge of how to do swidden agriculture, and it's done every year.

[24] FORCLIME has been a BFCP partner since 2010 and in 2013 designated Long Lamcin a REDD+ demonstration village. Since then it has focused primarily on supporting household agroforestry and community forest monitoring.

This explanation gives voice to the disparity between the size of resource concessions in the area, often spanning tens of thousands of hectares, and the environmental impact of communities' shifting cultivation practices.

Punan Kelay communities practice a form of swidden (*perladangan*) unaided by fertilizer or mechanical tilling, usually opening mature or secondary succession forest along rivers or logging roads on a five-to-seven-year rotation. Households in Lamcin possess on average five plots ranging from 1.5-2 hectares each, according to a Payo-Payo survey and subsequent TFCA report. Households usually plant one field a year within the agricultural cycle, with groups of families coming together (*gotong royong*) to open fields (*menebas* and *menebang*) using hand tools and chainsaws, before letting the fields dry for several months. After they dry, individual households then burn their fields (*membakar*) using long staffs packed with a lit wick, moving strategically across their fields by foot and taking care for both their own safety and that of the surrounding forest. After fields are burned, households come together again to help plant them (*menugal*), moving as large collectives up and down a field's slopes, with a front row of individuals using wooden staffs to prepare several-inch-deep holes, while successive lines of people throw seeds into them. Over the course of the growing season, individuals and households will move regularly between their village houses and make-shift platform camps (*pondok*) to monitor their fields, often staying overnight and if necessary for days at a time. After waiting for up to five months, families then again come together to harvest the rice (*panen*), moving as teams and using wooden hand tools with a small blade and their first two fingers to clip rice stalks ready for picking. Depending on when fields were planted and when rice is ready, this harvest phase can extend weeks, before

ultimately ending in a celebratory festival with portions of each household's harvest packed into bamboo sections with coconut milk and cooked all day in successive batches before being shared and enjoyed together late into the night.

In thinking about these SIGAP agreements, while my friend above was able to articulate her concerns regarding the fairness of the swidden regulation, throughout my research I found that communities' knowledge and understanding of not only FPIC but REDD+ more broadly was limited, with those more informed often being in positions of authority or possessing connections to the NGOs and other groups pursuing projects in their village. The politics of this information asymmetry was additionally complicated by the fact that SIGAP practitioners rarely if ever used the language of SIGAP with community members, with many actively making the choice not to. A SIGAP district manager for a collection of downriver Kelay villages elaborated: "We do not talk about what is SIGAP and so forth, never…it is just for us. . . We talk about how they dream, plan, and so on." One TNC SIGAP facilitator echoed that sentiment, adding however that what the communities did understand was the performance-based payments to reduce swidden:

> What they knew is that they got an incentive from TNC based on the commitments they made, their previous agreement. Then they were obliged to carry out their commitment and they knew the consequences if they broke their commitment, a loss of budget and other sorts, teaching me to relate it to the passage regulating swidden agriculture. They knew that the commitment that wasn't followed had consequences.

With their grounding in community livelihood change, performance-based requirements, and threat of budgetary consequences if requirements are not met, SIGAP's FPIC-based contracts are a clear tool of environmental governance aimed at shaping community behavior. The influence of a program's desired outcomes on FPIC

negotiations was also acknowledged at various times by Indonesian NGO actors. While supportive of the role global climate policy has played in formalizing the need for FPIC in international conservation, one national-level scientist reflected, "I want to say honestly there isn't ever the perfect *consent* that is completely left to the community. They are all *guidance*, or, *directed*, in my opinion."

Cast in this light, FPIC is "not a neutral political technology of deliberation and decision making but a device of social mediation and control" (Dunlap, 2018, pp. 18–19) and part of neoliberal conservation's "'inclusive' turn"[25] (Scheba, 2015, p. 5). Tracing such a trend from community-based natural resource management (CBNRM) to REDD+, Scheba (2015, pp. 5–6) argues that:

> Today conservation advocates promise the political and human empowerment of local people through conservation actions, arguing for their rightful and formal inclusion in markets for conservation commodities (Büscher and Dressler 2010; FAO 2011; Larson 2010). To safeguard the rights of the poor conservationists pledge to take into account human rights frameworks, ethical principles, standards and safeguards that have been developed to guide the just inclusion of local poor in conservation efforts.

SIGAP fits neatly in this evolution, advancing a REDD+ agenda anchored in the language of inclusion, engagement, and appreciation, while likewise requiring community commitments to restrict certain livelihoods and promote alternative, more market-friendly, ones, whether permanent cacao or rubber gardens or small-scale ecotourism or handicraft businesses. Scholars and practitioners alike, however, have questioned this conservation logic, with earlier work concluding that "[TNC's] forest governance has coalesced around land sparing swidden control because compensated

[25] Using Craig and Porter's (2006, p. 12) framing, Scheba (2015, p. 5) defines "'inclusive' neoliberalism as "retaining core conservative neoliberal macroeconomic and pro-market policy settings" while "[adding] 'positive liberal' approaches emphasizing 'empowerment' to enable participation (and ensure 'inclusion') of countries and people in global and local markets."

reductions in swidden can reconcile community livelihoods with industrial forestry and government development priorities" (Thaler, 2017, p. 234). During my last interview with him, Amir captured the depth of this questioning and his clear unease at SIGAP's emphasis on restricting shifting cultivation and promoting community land use change:

> That is the question that always haunts me, Walker. Why will the community's swidden agriculture be limited? While in another place there are logging companies, there are oil palm companies, that clearly, before our eyes, do *land clearing* but do not get anything [laughs]. So I once said at TNC that preferably this TFCA program should also target the company as well. Oil palm plantation companies, logging companies, are actually doing activities that conflict with conservation.
>
> *Land clearing* conducted by palm oil companies is the opposite of conservation. That's in the locations we support. Logging activities are contrary to conservation because they are doing unsustainable logging. That, in my opinion, needs to be answered by TNC also…Conservation activities are useless if only targeting, targeting the local community, not the company.
>
> For example, Walker, our facilitation village, Long Lamcin. Here, there is a community. Here, there is a company with a large concession area. Then this big funding from TNC comes in only to protect this [pointing to the area around the village under swidden cultivation], the small part here. At the same time deforestation occurs here that is done by the company. In the end, it is only here later [pointing again to the swidden area] that will be protected for conservation [laughs]. However the main problem is here, the problem. Who is that? The company!
>
> Now we see the context of Lamcin. How many people are there? Let's say 30 households, households with 128 people, if I'm not mistaken. They just need this amount of land [pointing again to the imaginary map]. Here, there is only one company, Walker, let's say it's the Amindo company. There are still three other companies. That concession area is so expansive. Every year they do a work plan for logging, what I'd call rotation cutting. The community here does shifting cultivation, which Walker saw. How many hectares is it? Like this [makes a tiny gap between his fingers]. And then through the performance-based incentive program, we demand that they do not open swidden fields, limiting the swidden – How do we do that? That's what I consider not *fair*, truthfully, which should at least be considered by TNC.

Taken together, this analysis demonstrates the need to confront the implications of asymmetrical power relations within FPIC agreements. Importantly, however, the story

of FPIC in SIGAP and the Berau Forest Carbon Program more broadly does not end here. Moving forward, I draw on Gluck and Tsing's (2009) concept of "words in motion" to grapple with the work that is done not only by FPIC's presence but its seeming absence as well. Pulling disparate translations and enactments together, I ask what political lessons emerge for conservation from the fragmented, incomplete, and yet co-existing forms of community engagement found in the BFCP, as well as how the introduction of a social media application creates a "standardized package" (Fujimura, 1992) that attempts to stabilize translational tensions and in so doing introduces new complications and dangers for protecting and advancing community rights.

FPIC as a "word in motion"

Gluck and Tsing (2009) argue that certain concepts are "words in motion." "Following words," Anna Tsing writes, "in and out of cosmopolitan discussion, national languages, institutional configurations, and imperial impositions brings out the motion inherent in cultures, nations, and regions" (2009, p. 11). Such words "become embedded in social and political practices, changing their impact and their meaning as they go" (Gluck, 2009, p. 3). Focusing on words "that do work in the world" (Gluck, 2009, p. 3) illuminates "where global standards break down as meaning is reinvented" (Tsing, 2009, p. 11).

Seeing FPIC as a "word in motion" helps make visible the fluidity and uncertainty of translating policy concepts to practice; the social and historical contingencies that shape their enactment and effect; and the need to engage the "social life of rights" (Wilson, 2006, p. 78) in any attempt to safeguard them. This article has documented how

the FPIC process in SIGAP is diffuse, spanning many months and multiple phases, from Disclosure to Define to Design, and utilizing both informal methods and more formal contractual agreements. Figure 5 illustrates these stages of FPIC in SIGAP.

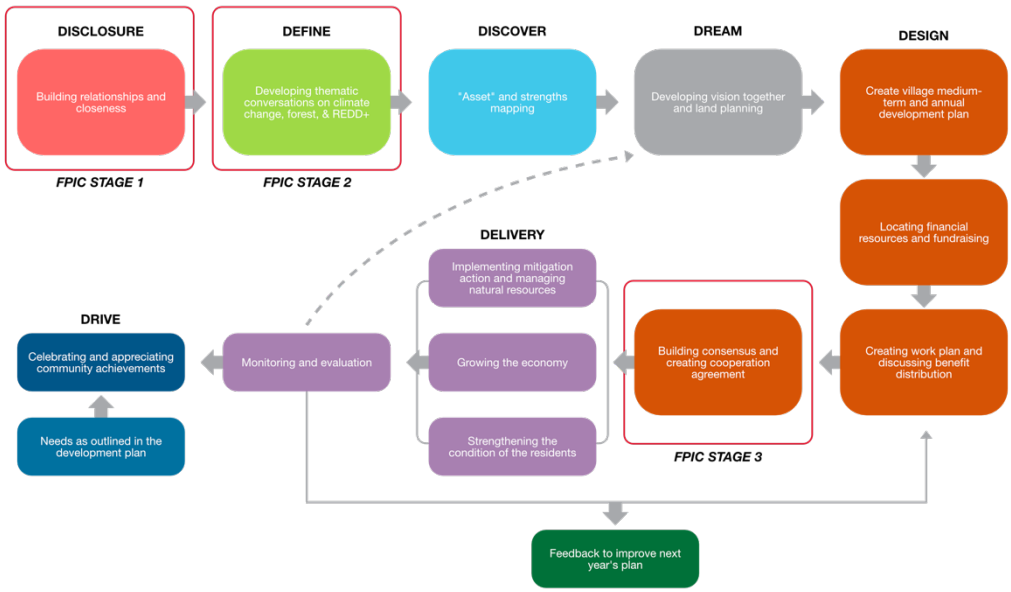

Figure 5. The stages of FPIC in the SIGAP framework (Translated and adapted from Hartanto et al. (2014, p. 19) by W. DePuy and M. Winowatan)

And yet, while FPIC is a fundamental right safeguarded by REDD+ policy and a necessary component of SIGAP, it was rarely, if ever, brought up by SIGAP practitioners when asked to explain the enactment and purpose of SIGAP. This was true whether talking to someone at the national level all the way down to the village level, and even in the case of the TNC facilitator who called FPIC the "most important" aspect of SIGAP.

This lack of attention to and emphasis on FPIC was most notable when asking practitioners about the first phase of SIGAP, Disclosure: its particular purpose and their experiences with it. What became clear is that Disclosure is the heart of the SIGAP

experience for many practitioners, and while it occupies a crucial place in the FPIC process for providing and sharing information, something else entirely often was emphasized by the people tasked with performing it.

The word "disclosure" is defined by the Oxford English Dictionary as: "The action or fact of disclosing or revealing new or secret information; the action of making something openly known" ("Disclosure, n.," 2021). At first blush this definition suggests a kinship and affinity with the aspirations and ideals of community consultation and consent. When looking to the SIGAP manual, however, a different picture of what Disclosure connotes comes into view.

Alternatively defined as the "[process] of building relationships and closeness" (Hartanto et al., 2014, p. 20) and "opening oneself up" (2014, p. 18), the manual elaborates: "For this beginning stage, communities and facilitators open themselves up in order to build relationships and closeness. Communities convey to their facilitators about their lives, the challenges they face, as well as their hopes and dreams for a better life" (2014, p. 18). It is this definition of Disclosure – of becoming close (*mendekati*) – that consistently and potently emerged from conversations with SIGAP practitioners.

A national level TNC practitioner reflected that Disclosure is "the hardest part" of the SIGAP protocol explaining that it usually needs between 3-5 months' time. "From Disclosure," he noted, "we start to get *trust*. One other thing we do than make analysis, we are *building trust*." He pointed to one of the founders of SIGAP as a clear example of enacting Disclosure and the importance of becoming "[a] *good listener*." This founder and principal tester of SIGAP reflected: "Disclosure is us getting close. So we are living with the community, so we get to know them, their livelihoods more clearly, more *detail*,

and they get to know us. That is Disclosure. So getting to know, getting deep with them." He explained that over a six-month period:

> I, every month, it was usually half a month or up until 20 days, I was in the village like that. 20 days I was in the village living with them. I lived in community homes, sometimes going to the swidden fields. Sometimes I also followed them to the forest, while chatting, discussing, chatting. From that they trusted us, and I also got to know them. When we discussed, what we categorize as Define, we were raising awareness. We opened the community's [mind], and we helped the community realize that they have tremendous potential.

This emphasis on building trust and relationships was highlighted in conversations with field-level staff as well. As one district manager who worked with Berau's coastal communities reflected:

> It starts with [the facilitator] finding the key leaders in the community. Look for and then maintain good relationships with them. It begins truly with service. Serving the village, devoting all of your mind and energy to coming together. To feel also what the atmosphere is like in the village.

He continued that the facilitator "must try to first to get close to and follow the rhythm of the community. What the desires of the village are." Such explanations mirror the language in the manual, including the length of time suggested for its pursuit ("between 3-6 months" (Hartanto et al., 2014, p. 20)), its ultimate goals of building "a relationship, sense of trust, and closeness" (2014, p. 20), as well as the need for facilitators to engage across "formal and informal contexts" in their communities (2014, p. 20).

Taken together such descriptions emphasize the need for building rapport in community-based work, as well as placing a priority on informal interactions over the course of Disclosure. In language like "building trust" and "raising awareness," the familiar drive to shape people's conduct and alter their subjectivities around alternative livelihoods similarly comes into view. As a district manager for a group downriver Kelay communities reflected:

> Just like what I mentioned earlier, we talk from heart to heart, motivate them, inviting them to dream. Even sometimes we visit them just to drink tea, not talking about the program. "I'm hungry, I want to eat here," just like that. They finally tell their stories from one heart to another. We discuss, for example, "Did you get any fish earlier? Why not? Did you get any boar?" "We did." Then we talk about how to hunt boars, and then we say, "What if we domesticated the pigs, yea?" That's how we do it… We need to do it that way. If we only run programs, SIGAP this and that, the people are not stupid.

Salim, the second village facilitator for Long Lamcin who graciously let me live with him and became a close friend, also noted the importance of spending time with community members and listening to their concerns:

> Yeah, the process of becoming close, that is *Disclosure*. The process like what we did last night with Pak Lewi, digging into the agriculture problems according to him, the education problems, the medicine problems. That is the *Disclosure* phase and for me it doesn't have to be a step that is standardized. Maybe it can be like this, *flashbacks*.

The depth and diversity of meaning captured in Disclosure – the need to follow livelihood cycles and cultural rhythms, work across formal and informal contexts, and build mutual relations of intimacy and trust – was conveyed clearly to me one day while helping prepare for the annual rice harvest festival in a Kelay village downriver from Long Lamcin. After returning from a trip to collect driftwood with a group of community members, the village's SIGAP facilitator and I joined an impromptu fireman's line to stack recently chopped kindling in the communal outdoor cooking area. Amidst the myriad sounds surrounding us – of wood splitting, dogs barking, children playing, people laughing – Arman, the facilitator, passed an armload to me and smiled. "This," he said, "is *Disclosure*." His pointed happiness and pride at such work – and the gregarity, sociality, and rapport it generates – shone through, illustrating how acts as seemingly small as gathering firewood can be in fact integral, indeed essential, to the pursuit of SIGAP.

This story and the comments above likewise showcase an aspect of Disclosure not captured in the manual and only occasionally acknowledged by national-level staff: its actively ongoing nature. Despite the manual's suggestion and TNC staff's reiteration that the Disclosure phase should take between 3-6 months, conversations and lived experience with SIGAP practitioners suggested otherwise. The moment with Arman occurred over two years into his work with the community. Indeed, the downriver Kelay district manager captured the view of many field-level practitioners in one word, when reflecting on the suggested time period allotted for Disclosure: "Nonsense!" His colleague in an interview went into more detail, noting that Disclosure "requires quite a lot of time. To do the approach with the community we need a long time. We can't do the approach in one month, two months. It's very hard." From such comments, we see lessons that echo previous literature on FPIC: namely, that neither FPIC nor Discourse is a simple, one-off, bounded event. Sharing information, building trust, conveying meaning, gaining consent requires vigilant iteration sustained over time. Salim – nearly two years into Payo-Payo's contract with Lamcin – noted: "I am still in the Disclosure phase, and Disclosure perhaps will go until the TFCA program ends." Like FPIC, in many ways Disclosure's legitimacy derives from its ongoing process.

As I worked to trace the blurred boundaries between FPIC and Disclosure, however, the ongoing presence and use of the Indonesian term *sosialisasi* became impossible to ignore. Originating in the New Order regime of Suharto, this term encapsulates the regime's governance ethic, grounded in "one-way communication," absent of debate and allergic to dialogue between government and civil society (Howell, 2015, p. 40). Specifically, *sosialisasi* or "socialization" is the long-standing cultural

norm through which government actors communicate policies and programs to local communities. As Signe Howell explains: "Representatives of the state would turn up to inform the population what had been decided with respect to their lives, and people would listen and acquiesce – at least publically" (2015, p. 41).

While REDD+ in many ways catalyzed a different model of engagement between the government and civil society (Howell, 2015), *sosialisasi* is still a dominant force in REDD+ consultation practices, shaping in many ways how FPIC processes are conceptualized and performed with local communities. "In Indonesia," Howell and Bastiansen (2015, p. 13) reflect, "FPIC often gives the impression of being a continuation of the same practice as the previous *sosialisation*," where a team from the regional capital visits a target village to share information about the project's goals. Howell and Bastiansen continue that their team of researchers "found that meetings between communities and government or NGOs in the name of REDD+ often seemed like an opportunity for teaching and persuasion, rather than dialogue and an open process of gaining (or not gaining) consent" (2015, p. 13). "Mostly," Howell in another piece notes, "they continue to speak *at*, not *with*, the local population (2015, p. 41).

In Berau, *sosialisasi* is still used today as a catch-all phrase for community consultation by state and non-state actors. This was observed in multiple occasions where local SIGAP practitioners used the phrase *sosialisasi* to both define and explain the Disclosure stage, as well as the PADIATAPA process. This was clearly demonstrated when the first Payo-Payo facilitator for Long Lamcin described the preliminary PADIATAPA process:

> So, pursuing PADIATAPA coincided with Payo-Payo launching their work in the village. First, we of course we asked permission with the head of village, we

> communicated what our purpose and goals were and that we needed the community to be gathered, when the community roughly had already returned to the village, because we wanted to also do a socialization [*sosialisasi*], meaning an agreement…

That it is regularly substituted for either the idea of Disclosure or FPIC by SIGAP practitioners speaks to issues of translation. But it also raises the question of how well the meaning of FPIC is understood and taken seriously across and within various levels of Berau environmental governance.

The distinction between FPIC and *sosialisasi* by the Berau government was perhaps most clearly articulated by a Social Forestry professor and REDD+ social safeguards consultant for East Kalimantan, who noted:

> …for each activity related to forests, or mining, or any kind, they always give the information to the community, but the context is not FPIC, the FPIC that is *Free and Prior Informed Consent*, not that. [They] do not ask for community agreement, but just provide a socialization [*sosialisasi*], informing that they will work here, "We have gotten permission and so on," like that. So there is not within that context an agreement from the community. The FPIC concept itself is still ignored at the bureaucratic level [and] still isn't used like that.

Indeed, the dominant use of *sosialisasi*, as opposed to FPIC, was clearly visible in Berau's forestry department, whose work coordinating newly-designated forest management units (FMUs) and Social Forestry arrangements between state, private, and community actors is integral to the BFCP. This was most notable when I asked the forestry department's sole community coordinator to describe his official duties, which cover all 107 villages of Berau. While he has not received any training related to his position, he noted that it falls upon him "to provide socializations [*sosialisasi*] concerning government legislation to communities" there. When asked about the meaning of the term, he replies:

> Socialization [*Sosialisasi*] means that I give knowledge to the community that: "This government regulation prohibits forest burning. This is the law. The legal threat is a prison sentence for a certain number of years. And then there is the threat of indemnity, [and] a monetary fine of a certain number of billions." I have to provide a socialization [*sosialisasi*] for that. I inform the community…

The emphasis on *sosialisasi* over FPIC in the forestry department was likewise observed by Amir, who notes that their use of *sosialisasi* stems in part because, aside from the head of the department, "They don't understand it, Walker, what PADIATAPA means…"

Taken together, the ethnographic analysis above illustrates the muddy enactment of FPIC across language, actor group, and governance scale in the Berau Forest Carbon Program. We see FPIC obscured in SIGAP in favor of TNC's emphasis on rapport- and trust-building and elided through the forestry department's practice of *sosialisasi*. From FPIC to PADIATAPA to Disclosure to *sosialisasi*, tracing this "word in motion" helps illuminate the "social life of rights" (Wilson, 2006, p. 78) and the messy and diverse kinds of work FPIC discourse and practice do.

Through this work we likewise see a lack of explicit attention given to FPIC by SIGAP practitioners writ large. Equally troubling, we see specific moments of symmetry offered between *sosialisasi*, Disclosure, and FPIC. Together these findings present real reasons to worry about how the procedural rights of communities are being protected and to ask what a lack of knowledge concerning FPIC, its significance, and its potential pitfalls might mean for the pursuit of SIGAP, REDD+, and other environmental governance agendas in the future.

The final section of this article builds on these last two sections to ask: What does it mean for FPIC, and community engagement more broadly, to be rendered digital and scalable in environmental governance? As SIGAP is replicated and scaled up across

Berau via a social media application, and its deployment shifts from primarily TNC control to instead the district government of Berau, what challenges and lessons become visible and what previously unseen questions need to be asked?

FPIC via the "standardized package" of a social media app

Since the beginning of my research in Berau I heard from TNC practitioners and village head partners about the plan to shift the focus of SIGAP from REDD+ to the more nebulous idea of *sejahtera*, a term broadly translated as "prosperous." This shift gives partial control of the newly-minted SIGAP Sejahtera to the district government and through this enables its deployment across all 100 villages in Berau. TNC's long-running partnership with the Berau government for the Berau Forest Carbon Program is a clear example of hybrid or networked governance, where state and non-state actors share governing duties and responsibilities (Bäckstrand, 2008; Campbell et al., 2014; Lemos & Agrawal, 2006). However, this hand off of SIGAP control is arguably a potent new example of it.

Interviews with TNC staff across governance levels and Berau district government officials suggest that this SIGAP iteration builds on existing SIGAP-REDD+ policy goals, including the promotion of village-level natural resource management, tenure clarity, alternative community livelihoods, and mid-term development plans. SIGAP Sejahtera also, however, aims to more fully synchronize its efforts with subnational and national policy goals. This includes the district-wide pursuit of mid-term development plans and Social Forestry agreements, as well as steady progress towards moving communities up the designated rungs of the "village development index."

TNC's district director suggested that one of the benefits of introducing SIGAP to the district government will be improving the process and practice of the mid-term village development plans. In the past, the TNC staffer recounted, government agencies were often not aware of each other's actions and movements. SIGAP, he explained, can offer a standardized process and operational clarity through improved communication between agency actors. The director noted that village development plans are too often created through a simple "copy/paste," without taking local conditions and contexts into consideration. Because of this, he stated, the development plans cannot "work on the ground." SIGAP, instead, hopes to enable "more participatory land use plan, midterm development plans." In this way, he felt, SIGAP Sejahtera's deployment throughout Berau can serve as a model for other districts around Indonesia.

When discussing this new iteration of SIGAP with TNC actors and diverse SIGAP practitioners, however, it became apparent that its novelty and potential lay not only in its shift in emphasis and increased alignment with government policy, but through its method as well. In particular, TNC, with its longtime SIGAP partner, Inspirit, developed a social media application to digitize the SIGAP protocol. One of SIGAP's developers explained the decision thusly:

> This application is, really, we have the intention first like this: What we did in Merabu, we hoped can be replicated in other places. Because what we did, it turns out, can increase change and can give others inspiration. But it turns out when we do it alone, it needs time. It takes costs that are expensive. Imagine, we have to travel around to 100 villages. Starting from Biduk-Biduk until Segah. It's expensive and long.
>
> And so while we were traveling around, we saw that it turns out villagers that have internet connections are familiar with cellphones. They like using Facebook. They are used to using WhatsApp and are used to using Instagram. So we started to be tickled: "Why don't we use this approach by using [a] *smartphone*?" First, the key word was how to make a process of mutual

> inspiration? One place with another. And then: Is whoever is conducting activities in a village, the village facilitators, doing activities in line with SIGAP principles? If they do *Disclosure*, [if] they sincerely do *Define*, do *Discover*, so it can run.

He continued that in reality SIGAP is three co-existing ideas:

> So SIGAP is three things. First, SIGAP as an approach. So, as an approach to support communities, starting from *Disclosure* until *Drive*. Then SIGAP as an attitude, as an attitude that appreciates people, as an attitude to motivate people. The third is SIGAP as an application. This is what we are trying to develop now.

This insight helps clarify that SIGAP in fact is multiple things. It is a community engagement approach. It is an ethic or attitude of appreciation and action. And now it is a social media application. Smart phones with the application preloaded were supplied during my time in Berau to SIGAP-facilitating NGO staff, provincial Forestry department partners, and 10 villagers per SIGAP village, with priority given to community members that hold positions of authority in village governance.

When discussing the application, TNC staff argue that the app's multimedia capabilities – of text, photo, and video – offer myriad benefits for advancing SIGAP goals and for improving community engagement. The SIGAP founder above reflected that the app provides to start "a general view" of SIGAP through short animated videos, explaining its approach and how the stages are done for. Comparing it to Facebook and Instagram, others noted its ability to facilitate both information sharing and information storage. Whether practitioner or community member, app users can post pictures and videos of village activities and SIGAP efforts, as well as comment on events and experiences.

Sitting with this founder in a Jakarta hotel lobby, he described his experience years earlier pursuing the Disclosure phase in one of TNC's model villages and, opening

the app, demonstrated how the application has helped document and share that work. Pointing to notes he wrote to himself, he reflects: "This, May 20, was the first time I visited Merabu village. 'To reach Merabu, we must stay overnight in a floating village and then use a small boat with one person and…' This is my record in 2011, so this knowledge will not be lost." He shows me a picture of himself sitting with an elderly man and explains how this image and accompanying text can help remind him of people he met during Disclosure: "Second, 'I met with – who?' This is my Disclosure process. This is me meeting with the village's customary leader. He told me a lot. Here he is. This is like Instagram, but there is a description. So this is like my report." Flipping through pictures he shows me images of a fishing trip he took with villagers on May 13th and another from May 15th where he "learned [and] listened to stories." Formal and informal activities alike, he says: "I always record every incident here, anything I do when I've met [people]…This is so I don't lose it," instead "it has been saved." The information can be organized by SIGAP phase, for as long and as often as the facilitator is in the field. "Whatever is done in the village is recorded here," he says. "It can't be falsified."

With its posting capabilities, TNC staff reflected that the SIGAP app will enable more efficient sharing of information across state, civil society, and community stakeholders, and in certain cases could even act as a marketplace for community handicrafts and ecotourism options. A discussion board function aims to facilitate stakeholder communication between facilitators and geographically-dispersed actor groups, while a map feature shows in real-time where the app is being used, who is currently active on it, and what they have posted to the app and corresponding website.

For SIGAP facilitating NGOs, the application likewise can help monitor budgetary progress and keep track of village-by-village movement through SIGAP phases. Such examples and descriptions highlight the clear potential of the app to provide meaningful support for SIGAP facilitators, as well as diverse avenues to amplify community voices, priorities, and feedback.

Thinking about FPIC, the social media application could further particular aspects of it in substantive ways, perhaps most clearly being the requirement for communities to be fully "informed" about programmatic goals and desired activities. Preloaded videos explaining SIGAP and its phases, digitally-networked documentation of SIGAP activities, multimedia-enabled content, and dedicated forums for dialogue between stakeholders and communities offer unparalleled levels of transparency and communication concerning SIGAP's process and outcomes, visible from the individual to the district level.

The application likewise addresses a previously-mentioned criticism of FPIC concerning the requirement that communities be fully informed "prior" to an external project beginning. Because projects are not static, the information that communities require about them – their goals, desired activities, and potential effects – cannot be communicated at any single point in time. Free, prior, and informed consent to be legitimate then needs to be seen as a dynamic and ongoing process. The SIGAP social media app offers a powerful platform to provide adaptive, two-way dialogue and attempt to navigate this concern.

In addition, however, to such potential advantages for aspects of community engagement broadly and FPIC in particular, I argue that SIGAP Sejahtera and its social

media app manifestation suggest real dangers as well. In earlier sections, I showed how FPIC can act as a mechanism to advance a REDD+ governance agenda around swidden reduction and alternative livelihoods, as well as simultaneously exist as a "word in motion," whose varied implementation does different work in different contexts. I argue that the social media application is in many ways a perfect "anti-politics machine" (Ferguson, 1994), whose facsimile to Instagram or Facebook, and framing as simply a tool for communication and documentation, can hide SIGAP Sejahtera's governance agenda; the politics embedded in the application's design, adoption, and use; and the fluidity and uncertainty surrounding the interpretation and enactment of rights-based concepts like FPIC.

A fundamental consideration regarding the social media application concerns the politics of information: what is included, what is excluded, how is it represented, and who controls its access, management, and use. These questions highlight that despite its potential for unparalleled transparency between stakeholders, the app is not a neutral platform, but instead one that shapes – and is shaped by – stakeholders' framing and understanding of the world (Jasanoff, 2004; Li, 2007; Mosse, 2004).

Science and technology studies (STS) scholars would consider the broader SIGAP framework to be a "standardized package," or a set of organized methods able to travel across social worlds in the service of addressing pre-determined problems (Fujimura, 1992; Lave, 2011). Designed to be "acceptable, translatable, transportable, and fundable across disciplines and communities" (M. J. Goldman, 2011, p. 192), standardized packages can be seen in fields as diverse as cancer research (Fujimura, 1992), stream restoration (Lave, 2011), and wildlife conservation (M. Goldman, 2009). As such

packages travel across the science-policy-practice interface and are used by more people at various levels of governance, their terms of debate and goals can become uncritically accepted, naturalized, and "exempted from further analysis" (Jasanoff, 2004, p. 20). This ability to travel helps the packages gain legitimacy, power, and an "apparent universality" (Law & Singleton, 2004, p. 5).

This is all predicated, however, on the package – in this case a community engagement protocol – retaining its shape across both physical and relational space (Law & Singleton, 2004). This need for standardization – of common language, problem definition, and ultimately "a common cause" (M. J. Goldman, 2011, p. 192) – helps define and "make 'doable' the undertaking of projects and research" (Zimmerer, 2011, p. 173). Seeing the SIGAP social media application as a powerful standardized package has important implications for the pursuit of FPIC and how communities are "informed" about SIGAP Sejahtera's agenda and activities.

It requires asking about the content of the app's preloaded explanatory videos, what is emphasized, and what is left out. But it also requires asking how critical information is being represented and for whom. A dedicated review of Indonesian REDD+ projects emphasized the role of FPIC in enrolling community participants in REDD+ projects (Milne et al., 2019). However, it also found "an over-emphasis among REDD+ actors on producing evidence for safeguard or standards compliance rather than substantive local engagement" and that even after FPIC's completion "local participants typically remained confused about REDD+ objectives or unaware that REDD+ projects were underway" (Milne et al., 2019, p. 89).

The vignette that began this article, and the documented experiences of the SIGAP founder above, show how the SIGAP app can be used to capture particular moments in photographs. Pictures can serve as essential documentation of events, such as discussions and meetings with community leaders and members. But posting a picture as evidence of consent raises the question of what nuance is left out or what deliberation is simplified when reduced to a single photograph? What confusion or contestation is rendered invisible? The SIGAP practitioner in the opening vignette joking that, "We could take a picture of ourselves right now and call it, 'Disclosure,'" makes plain the need to ask: what potential for misuse is enabled?

In reflecting on the benefits of the app's discussion board and posting capabilities, one founding developer of SIGAP called it as easy to use "as making a status on Facebook." However, he also argued that the app is different than, even better than, other social media platforms, because it does not promote hate, indeed does not allow it. "Here," in the app, he says, "there isn't discrimination. There isn't hate. There isn't political promotion." Instead, he says, "There is control about its content." When asked for examples of what content is considered out-of-bounds and political, he explains:

> Like campaigns. For example, "Vote for Pak Awang Faroek as governor." That will be deleted by us. Or discriminatory speech, for example hate towards a certain ethnicity. That will be deleted. Also product promotion that is for personal interest. For example suddenly there is a promotion for the sale of motorcycles, for example. Here, we delete it….[The application] is meant to be a forum to mutually provide information and appreciate each other. Imagine if the entire village community follows it, they will be more positive than for example when they look at Facebook.

This explanation highlights the desire for the app to promote the previously-described attitude or ethic of SIGAP as one of positivity and mutual inspiration. However, the fact that content is controlled also makes clear that the SIGAP app is inherently and intensely

political, much as debates have engulfed other social media platforms in recent years. With stakeholders' postings potentially censored, and dialogue focused on the "positive" rather than the inverse, what might that mean for the kind of information shared between communities and other stakeholders across the platform? And how does this affect FPIC's requirement that communities be fully "informed" about projects? When one considers the myriad ways in which the app is controlled by TNC – its data stored on TNC servers, owned by TNC instead of its users, and monitored and censored for particular goals – one must think carefully about how the application facilitates particular governance outcomes.

TNC's motivations were in fact on the mind of many practitioners in Berau. One government-contracted practitioner based in Long Lamcin wondered:

> Why did they add the word "sejahtera" behind the word SIGAP? It's like the phone is a symbol of prosperity. *That's weird. I'm still searching time to find what is the* – What is their justification for giving the phones free of charge? *What is their motives?... What is they're trying to achieve with that smartphone?*

One answer is scalability. While SIGAP began with two model villages, its spatial reach has increased, being steadily replicated to more villages and at larger governance scales. The development of the social media app explicitly aims to continue this trend, pushing SIGAP's adoption beyond Berau to all of East Kalimantan and out to other provinces. As Amir reflected once, "SIGAP is a tool but they [TNC] treat it like a goal."

"To 'scale up,'" Anna Tsing notes, "is to rely on scalability—to change the scale without changing the framework of knowledge or action" (2012, p. 507). "When small projects can become big without changing the nature of the project," Tsing writes, "we call that design feature 'scalability'" (2012, p. 507). "Making projects scalable," however, "takes a lot of work" (2012, p. 507). It requires a foundation of "neutrality,"

observations to be "compatible and collapsible" (Tsing, 2015, p. 88), and inputs "standardized" (2012, p. 507). The SIGAP protocol generally and its social media app manifestation as standardized packages fits that description perfectly.

While the standardization and self-containment necessary for scalability is meant to reduce friction between individuals, actor groups, and governance scales, it ironically makes it harder to see the fluidity, instability, and uncertainty of policy concepts as they move through the world. It makes it harder to see "words in motion." This motion was captured in the previous section that examined the conflation of FPIC with the SIGAP phase of Disclosure and the Indonesian term *sosialisasi*. The development of SIGAP Sejahtera and its social media application showed similar emphases and elisions, with the terms Disclosure and *sosialisasi* being notably used while FPIC was rarely mentioned. This was seen perhaps most clearly some five months into my Berau-based research, when I attended a district-wide unveiling and orientation for SIGAP Sejahtera.

Held at one of the two largest and nicest hotels in Berau, the event brought dozens of community representatives together for a three-day workshop about SIGAP Sejahtera. Representatives from SIGAP's facilitating NGOs were invited, as well as larger Berau governance actors like GIZ and the provincial Forestry department. The event was organized by TNC, but included speakers from the Berau district government and its SIGAP partnering NGO, Inspirit, as well as demonstrations and tutorials from the app developers themselves. The event was highly anticipated because TNC handed out free smartphones to the communities and practitioners alike with the preloaded SIGAP app.

Prior to handing out the phones, TNC staff, including SIGAP's founders, gave opening presentations to describe the SIGAP protocol, its underlying ethic and its

method. Those presentations demonstrated the clear similarities between SIGAP Sejahtera and descriptions seen earlier in this article around SIGAP-REDD. The presenters highlighted SIGAP's grounded in an ethic of appreciative inquiry. They spoke of psychological research that demonstrated how positivity is more productive for affecting change than negativity, and they prioritized the agency communities had for changing their lives through creativity, using specific examples of ecotourism and local commodity production. The vision of SIGAP projected to communities was likewise captured by an enormous banner covering an entire wall of the convention hall. Depicting a large cartoon illustration of Berau's mosaic landscape, with diverse communities and varied land uses and livelihoods, a single, circuitous, paved road with a car traveling along it tied the landscape together, symbolizing both the process, and potential benefits, of SIGAP for the peoples of Berau.

Videos were used to communicate the meaning and purpose of certain SIGAP phases. One such video described Disclosure as the "chatting phase" supposed to last between one and three months. There is no mention in the video, or throughout the event, of FPIC or the option of not participating in SIGAP. One the founders of SIGAP later stood in front of the seated attendants and spoke about his experience facilitating SIGAP in the pilot village of Merabu, noting the importance of focusing positively on appreciation rather than negatively on problems, as well as the need for *sosialisasi* throughout the process. Likewise FPIC or PADIATAPA was not mentioned.

These examples suggest that the pursuit of SIGAP Sejahtera will, like SIGAP-REDD, prioritize Disclosure and obscure or elide FPIC. This raises the critical question of whether SIGAP Sejahtera practitioners are trained to know the value and necessity of

FPIC in their work; how and if community rights will be safeguarded as SIGAP Sejahtera is scaled up across the entire district; and how the social media application might reinforce this asymmetry or absence by prioritizing the language and structure of SIGAP that emphasizes rapport-building over consent.

The lack of emphasis on FPIC in SIGAP Sejahtera points to a final series of questions related to scalability and specifically the transference of SIGAP from non-state to state actors. The first question concerns whether SIGAP Sejahtera and the handing out of smartphones with the social media app represented a continuation of earlier SIGAP REDD agreements or whether it was a new phase that requires its own FPIC agreement. Indeed, what does being "fully informed" about BFCP or SIGAP activities mean in this context?

Thinking back to the launch event, Amir points to the very act of holding the event, presenting smart phones, and having stakeholder groups, whether village heads or NGO coordinators, sign contracts before their respective groups receive phones suggests it is a new phase. After signing contracts, however, he noted that facilitating NGOs were not allowed to keep copies of the contracts, meaning that he was not clear what the contents were, and he was not convinced community representatives necessarily fully understood the content of the contracts either. "Was that an FPIC process?" he asked. "In some ways," he continued, "with the signing of a contract perhaps…But in the larger dimensions of FPIC as outlined by previous SIGAP actors – that of free, prior, informed consent – surely not."

There is likewise the concern that crucial stakeholders at the event – whether from the government or from local communities – might not recognize SIGAP as anything

more than the social media app. With many SIGAP practitioners not discussing or explaining the SIGAP protocol with their focal communities, it was perhaps not surprising that it was only after this event and the introduction of smart phones that many community members I spoke with had learned about SIGAP. And that when asked what SIGAP was, most suggested it was in fact the social media application. But what about the government? How does the government conceive of SIGAP Sejahtera? How will they utilize it? "Because," as Amir notes, "we don't want them to think that SIGAP Sejahtera is also [just] the SIGAP application." When asked if he thinks the government only understands SIGAP as the app rather than a broader rights-based mechanism, he responds with worry: "Yeah, I'm afraid it's like that."

This potential lack of knowledge by the government is troubling for myriad reasons related to protecting community rights and ensuring the fair and effective implementation of the SIGAP process. However, throughout my research there was uncertainty whether the district government is even required to pursue FPIC for its desired goals and activities. My first exposure to what the shift from an NGO-based to a government-based SIGAP protocol might look like came during a conversation in Long Lamcin with a community facilitator contracted by the district government.

Based in Long Lamcin for a year, the facilitator was part of a short-term community development effort to assist community-based efforts in sustainable energy, sanitation, and nutrition across Berau. When asked how he gained approval to come work in Lamcin, however, his answer gave me pause. He explained that another facilitator introduced him to the village, and while he made a point to visit the community

head in the Berau capital before coming to Lamcin, the consultation process did not follow FPIC guidelines, because it did not need to:

> Yeah. We negotiated by ourselves. So, really we had to start from the beginning getting to know the community, getting to know the village government and then working to convince them that we are an emissary from the district government. *They don't really have a choice whether they want us or not. We have the warrant from* the district government. There was a work letter.

This raises the possibility that FPIC as a right depends on your source of governance authority. This question was posed by a high-level GIZ staff member as well, who, speaking in English, contrasted the need for FPIC by private sector actors and government ones:

> So I also, as somebody who has been involved from the very, very beginning, ask myself, "Why does, for example, the Berau Forest Carbon Partnership Program need FPIC?" "Do we need an FPIC approach for public financing channelings?"…It's the role of the government to provide funds for certain activities. And I don't need an FPIC process for that.

When asked if the Berau district government is required to use FPIC, Amir answered that the way governance is aligned in Indonesia suggests the answer is no:

> It's like -- truthfully, they don't need to use PADIATAPA, in my opinion, and it will not be effective. Because PADIATAPA is a kind of admission ticket, a kind of ticket for permission to enter a village. While the district, to the sub-district government, to the village government, truthfully, they are united actually. One group, one organization, one institution, not a different group, so they don't need to use PADIATAPA.

And when asked if he foresees the district government using FPIC or PADIATAPA, he is not optimistic:

> In my opinion it won't happen, Walker…It seems to me that maybe the district government considers it not important. And while – if I may, this is just my assumption, Walker – and while TNC is supposed to give that understanding to the district government that this process is incredibly important, the PADIATAPA process, whether the program can be accepted by the community or not, that is the failure in my opinion.

> That SIGAP was received by the district government, but their process isn't being fully run, the SIGAP process, the SIGAP stages, fully. Without going through PADIATAPA, without going through Disclosure first. They aren't doing Disclosure actually, Walker, suddenly inviting all the village governments to come join a training and so on, and, "This is a phone. You use it, yeah? You photograph and report every moment that there is in the village and upload them in the SIGAP app."

This quote ties together the diverse yet connected concerns voiced in this section regarding the transition of community engagement and rights-based protocols from civil society to state control, the dangers of adopting and pursuing such protocols through a social media app, and the potential obscuring or explicit eliding of FPIC that could result. I conclude this paper by bringing together the previous three sub-sections to highlight and synthesize key findings regarding the pursuit and enactment of FPIC and what that means for protecting rights in complex and dynamic environmental governance regimes.

Conclusion

In this article, I present an empirical study of the "social practice of rights" (Goodale, 2006a, p. 3). By tracing the TNC community engagement protocol, SIGAP, as a written manual, lived practice, and social media application, I show how the work FPIC does as a contract, word in motion, and part of a standardized package is diverse and multiple. Seeing FPIC codified into a contract that financially incentivizes livelihood change highlights the power relations embedded in consent and consultation agreements and the need to interrogate them. Additionally, while signed documents like contracts can provide discrete and quantifiable evidence of FPIC's completion, that very discreteness can also obscure critical aspects of FPIC, including the need for it to be an

ongoing process rather than a singular event, and the question of who actually understands its purpose, process, and terms.

Mosse (2004, p. 47) argues that one deficiency in "standard interventions models" is that they too often remove history, wider economic and political analysis, and "'the continuous flow of social life'" from their starting assumptions or final assessments. Large-scale projects, he notes, are often hampered and constrained by the need to be consequential, innovative, replicable, technical, and driven by models. This focus on the quantitative, the scientific, the managerial, and the technical overlooks the critically social components laced throughout. Expanding our gaze and seeing FPIC as a "word in motion" helps counter this and instead makes plain the social and historical contingencies that shape its pursuit and the importance of recognizing its fundamentally lived and dynamic nature for any successful attempt to safeguard it. By following the evolution of SIGAP from its pilot stage in two villages to its recent adoption by the Berau district government as a social media app, I build on these findings to suggest that such an app holds potential benefits for conservation practice, thanks to its easy-to-use and easy-to-travel platform, and yet could also more easily hide the messy, political aspects of community engagement broadly and FPIC in particular from view.

Together these findings raise questions about the limitations of scalability as a goal and what a rights-based conservation agenda might look like that embraces a theory of non-scalability instead (Tsing, 2012). Such a theory, Tsing reflects, emphasizes "historical contingency, unexpected conjuncture, and…contact across difference" (2012, p. 510). It prioritizes relations of care over alienation and the false ideals of frictionless economics. It recognizes that non-scalable components and effects are often hidden

within scalable designs, and it questions replicability as a fundamental objective and the inherent logic of expansion. One limitation of scalability, Tsing notes, is the need for standardization. When thinking about "modern science…[only] data of the same sort can be added…without messing up the frame…Only data that have been gathered to fit a particular standard allow the research to be expandable" (2012, p. 522). "This kind of knowledge," Tsing argues, "cannot see nonscalability, because of the constitutive scalability of its own practices" (2012, p. 522). And that is perhaps the driving concern over rendering rights like FPIC and more broadly community engagement digital and scalable: what will not be able to be seen. Instead, Tsing suggests, "The problems of diversity, and of living together with others, require other modes of knowledge" and offers nonscalability theory as a way "to tell a different story, a story alert to…awkward, fuzzy translations and disjunctures" (2012, p. 522).

In the end, this article highlights the living nature of policy concepts in conservation practice, as well as the particular ways in which multiple translations of FPIC – as a contract, a word in motion, and a standardized package via social media app – coexist and interact. Only by recognizing concepts such as FPIC not as ossified and static but rather dynamic and social things will practitioners be able to grapple with the reality of translating rights from policy to practice and advance a rights-based conservation agenda that is culturally nimble, open to diverse and nonscalable forms of knowledge, and effective in safeguarding the communities they collaborate with.

Table 1: List of included acronyms

BFCP	Berau Forest Carbon Program
CIFOR	Center for International Forestry Research
COP	Conference of the Parties
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
FMU	Forest Management Unit
FORCLIME	Forest and Climate Change Programme
FPIC	Free, Prior, and Informed Consent
NGO	Non-Governmental Organization
PADIATAPA	Persetujuan Atas Dasar Informasi di Awal Tanpa Paksaan
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SES	Social and Environmental Standards
SIGAP	Ak**s**i **I**nspiratif War**ga** untuk **P**erubahan
TFCA	Tropical Forest Conservation Act
TNC	The Nature Conservancy
UNFCCC	United Nations Climate Change Conference

CHAPTER 4

CENTERING RELATIONSHIPS IN RIGHTS-BASED APPROACHES: THE NEED TO EXPAND CONSERVATION'S SOCIAL WORLDS[26]

[26] To be submitted to *Orion*

Introduction

The rain started that Christmas night in 2017 much like the Hemingway character Mike Campbell went bankrupt – gradually, then suddenly. Sitting with a small group of children and elders in Long Duhung's meeting hall after Christmas service, we waited for people to arrive for the usual closing ceremony of customary music, song, and dance. As we listened to the deep and steady staccato of water on the metal roof, however, we realized this would likely not happen. As kids reclined on the cool, white-tiled floor, and evening turned to night, the handful of elders sat in a circle and shared a story about this landscape's peopled history with lessons for today. Singing together, their words and the rain cascaded in chorus.

Out of six Punan villages who hail from the upper reaches of the Kelay river in Berau, East Kalimantan, Long Duhung was the chosen meeting place for this Christmas holiday, bringing all six communities, and their further downriver relatives from Long Gie, together for a week of friendly volleyball competitions, church services, and time with friends and family. The *hulu*, or upper, Kelay is a crucial watershed for large portions of Berau district, and its extensive forest cover and celebrated species diversity has pushed environmental NGOs to work with local communities in the area for over two decades. As we sat in the hall that night, we faced a banner blanketing the rear wall, making those NGO relationships both materially and symbolically visible. The banner promoted The Nature Conservancy's community-based work in Berau and its hope of uniting climate change mitigation, forest conservation, and community development there. With TNC's presence literally looming in the background, the elders subsequently explained that the song was composed only two years earlier by the neighboring

customary leader of Long Pelay. Laying down later on that tile floor to try and rest before the sun rose, the song sank into me amidst the unrelenting rain.

Sitting with Long Pelay's customary leader (*ketua adat*) and several elders three months later, we reviewed the song's lyrics that came to the *ketua adat* in a dream. It opens from his point of view arriving to a place that he soon realizes was previously where the community's ancestor, *Kakek* Bang Dilay, once stayed. Continuing onto their ancestral mountain in search of their history, the song pivots to decry the damage witnessed and "difficult" land left behind by outsiders, whether encroaching timber companies or *gaharu* hunters seeking its prized aromatic wood. The song ends with a plea for the government to recognize and respond to these struggles.

As we worked through its story, I was reminded of other examples from Southeast Asia of communities that draw on song, whether South Kalimantan's Meratus seeking to secure tenure claims from fickle honey bees (Tsing, 2003) or the way Temiar from peninsular Malaysia similarly receive songs from spirits in dreams that can act as ethnohistorical maps and territorial claims (Roseman, 1998). Listening, I realized what a special moment that Christmas night was that I had witnessed, the words and rhythm of the song connecting the past to the present and drawing the circle of elders together into the area's long-standing conflicts between communities and resource companies. In addition to highlighting the complex state and non-state governance arrangements communities navigate there, it communicated the myriad material and immaterial actors that occupy and shape their landscape and social world. That those elders sang this song at Christmas, a holiday steeped in ideas of birth and fellowship, felt especially poignant

and resonant, at odds with Berau's position in Indonesia's extractive regime and the central challenge of tenurial conflict facing its communities today.

Sitting with these experiences, then, a question started to germinate: namely, what might conservation practice look like that took such expansive social worlds seriously? And how can rights-based agendas instead explicitly center relationships of respect and care in conservation work – whether among and between communities, ancestors, spirits, companies, or conservationists? Drawing on my research in the Hulu Kelay, and in particular from a collaborative mapping project with the Hulu Kelay's Long Lamcin community, I explore those questions in this piece and argue for an expanded conception of sociality and an explicit emphasis on relationships in state and non-state efforts to advance and protect community rights.

When is a crocodile more than a crocodile?

Over four days in October, we traversed rivers, climbed waterfalls, and walked ridges across Long Lamcin's territory. This community-based forest patrol, or *patroli hutan berbasis masyarakat*, was one example of the REDD+ (Reducing Emissions from Deforestation and Forest Degradation) conservation activities funded and facilitated by German and American organizations in the Hulu Kelay. According to a Long Lamcin community leader, the primary goal of these patrols is to protect especially vulnerable places, whether tree species, animal habitats, ancestral graves, or spirit-imbued sites, with GPS units and digital cameras seen as valuable ways of documenting potential transgressions in contrast to past experiences when community complaints could more easily be brushed aside.

Our patrol revealed long-used hunting trails and comfortable logs to rest on to the joyful gathering of *cabe* (chili peppers) and *gaharu* saplings to bring home. These signs told of the subtle ways that culture and environment are entangled, the details largely undocumented in data collection or reports. What we saw echoed Tsing's observations in South Kalimantan that "forests are not wild places" but rather keenly known and densely populated ones (2005, p. 256). They reminded me of other ideas as well from my university classrooms and wider scholarship, concepts like "sense of place" (Feld & Basso, 1996), "dwelling" (Ingold, 2002a), and "domestic forests" (Michon et al., 2007). I found that such expressions of lived memory and local knowledge also reveal the centrality of questions too rarely posed by REDD+ practitioners in their pursuit of community-based conservation. Namely, what if a tree is more than a tree? What if a crocodile is more than a crocodile? And how should one act when a forest is more than merely a forest?

As we traveled up the Kelay river to the patrol's starting point one day, a friend from Lamcin pointed to a calm, deep place near the right river bank and mentioned that crocodiles live there. He reflected that one sees them often when diving for fish, but that they never interfere or otherwise endanger people. This is because there is an agreement – a *kesepakatan* – of mutual respect and peace first established between the crocodiles' ancestors and those of the people living along this river system. This explanation aligned with what another friend had mentioned to me just weeks before and what another *patroli* member would explain several months later: "The agreement between the people here and the crocodiles, the residents with the crocodiles," he said, "is that no one is permitted

to look for trouble: neither humans can disturb the crocodiles, nor are crocodiles allowed to disturb people."

Sitting with several elders from Long Pelay that following Easter, they revealed more of this history, tracing the origin of the agreement to a human ancestor of extraordinary ability, casting this unusual and enduring relationship as evidence of that fact:

> Now, for the crocodile: why do crocodiles particularly in this Kelay river not want to bite humans? Because there was one grandfather in the past…[who] made a pact with the crocodile. From upstream, he dove to every *limbu*, he met the crocodile, and he proposed that, from generation to generation, no crocodile in Kelay should bite a human. From the other direction, crocodiles for generations have never been disturbed by humans. Yes, that is their agreement…To this day, there is not yet word of crocodiles in this upstream region that have bitten humans. And there is not yet word of people that spear crocodiles. Because of that earlier deal.
>
> …In other places, right, we hear that crocodiles eat humans. Humans eat crocodiles. But in Kelay, [we are] just the same…The crocodile's place with humans is special on the Kelay river. Crocodiles cannot bite humans. Humans can't eat crocodiles. Because crocodiles, right, are animals that are eaten, but you are not allowed. It can't be eaten; it can't be killed. Just like that…it was a grandfather of a grandfather before named Dengjiwakjek who made that agreement, so that these two, animals and humans, do not interfere with each other and are not bothered by each other. That's him. That's the history.

Across the Hulu Kelay, Punan tell of their respected agreement with crocodiles, one of many ancestors with whom they have relations, from cobras and sun bears to leopards and eelfish. To tell them properly, these stories could go on for hours, they said – stories of humans becoming animals, animals that retain human qualities, and shapeshifters that can move between the forms still today. Such histories of shared ancestry, relationships of transformation and transference, and expanded senses of sociality are seen widely across ethnographic literatures and cultural traditions

(Govindrajan, 2018; Kimmerer, 2013; Velásquez Runk et al., 2019). This is true as well for Dayak communities across Borneo (Dove, 1993; Rousseau, 1990, 1998; Sellato, 2002; Tsing, 1993) and Punan/Penan groups in particular (Brosius, 1992; Kaskija, 2012), whether particular species are considered aristocratic and therefore taboo, auspicious auguries, or rights holders to be respected.

Sitting on a river bank after patrol one afternoon, my friend explained the challenge of navigating these relationships amid a landscape officially controlled by the state and dominated by concessionary actors like timber companies. In past work, colleagues and I have described such complex legal contexts as "tenure mosaics" (Felker et al., 2017). Discussing the codes of conduct known as *hukum rimba* that communities know to be legitimate and that precede the Indonesian state, he reflected that these community forest patrols hold great promise for upholding and sustaining them. In the same breath, however, he worried aloud that in their current iteration, they are potentially too focused on appeasing conservation actors rather than local needs and that the spatially-explicit data they collect opens the door for exploitation and corruption by the state and other actors.

When is a forest more than a forest?

The section above makes the point that sometimes a crocodile is more than a crocodile. By expanding our sense of sovereign actors in this landscape, however, it also argues for the larger point that forests are always more than simply forests. This holds implications for not only how landscapes are conceptualized by state and non-state actors but how rights surrounding those landscapes are conceptualized as well.

Berau district has been called "the frontline of Borneo's deforestation frontier" (Venter et al., 2013, p. 117). In reality, however, the construction of Berau as a frontier extends back centuries via systems of patronage for forest products, timber and coal extraction, and more recently forest conservation and oil palm production (Holmsen, 2006; Obidzinski, 2003; Thaler, 2017). People across the Hulu Kelay recognize the world-shaping roles of these patron-client relationships – whether between communities and Malay sultanates, colonial administrators, Muslim traders, resource concessionaires, or conservation NGOs. From coercive and exploitative to affective and appreciated, such arrangements are always laden with power, as made clear in the song that opened this piece, from the anger voiced over environmental degradation from timber concession neighbors to the desire for aid and assistance from the state in response.

Frontiers, however, are not natural occurrences, but rather relational constructs, ultimately defined through opposition: Frontiers *of* what? *Towards* what? And who and what are left behind in their wake? Looking across this history of frontiers, these questions hold special and sustained relevance for Berau's Indigenous communities as they navigate the coexisting realities of decades-long global conservation interest and the economic dominance of resource concessions (BRWG, 2011; Fletcher et al., 2019; Mackay & Associates & Marbyanto, 2013; Obidzinski, 2003; Sist et al., 2003).

With both conservationist and concessionary actors arriving to the Hulu Kelay in the early 2000s, fundamental to these conflicts is arguably ontological difference. Whether seen as reservoirs of natural resources, forest carbon, or biodiversity, both conservationist and concessionary actor groups frame forests as apart from the people who live within them. Captured by what Viveiros de Castro (2013, p. 29) calls the

"cosmology of late capitalism," forests are too often reduced in these places to merely sources of exploitable "potential" for area communities.

Forests, like land, are not, as Tania Li (2014, p. 589) writes, "like a mat." You cannot neatly roll them up and carry them on your back. Indigenous peoples throughout Southeast Asia (Arhem & Sprenger, 2015; Janowski, 2020; Mahanty et al., 2013; Paul et al., 2021; Sprenger & Großmann, 2018; Zerner, 2003) understand this, including myriad Dayak communities across Borneo (Dove, 1993; Fried, 2003; Roseman, 1991; Rousseau, 1990; Sellato, n.d.; Tsing, 2003; Venz, 2017) and the Penan and Punan in particular (Brosius, 1992; Janowski, 2015, 2021; Kaskija, 2012; P. Sercombe, 2020). Tied to ancestors and interwoven with memories, forests have "presence and location" (Li, 2014, p. 589); they are emplaced.

They are also fundamentally social: peopled by diverse visible and invisible non-humans who affect, interact, and communicate with humans as subjects in their own right, though these relationships' presence and role in peoples' daily life are themselves culturally-mediated and ever-changing. Together, these insights help situate land conflicts as not simply questions of economics but also ontological tension (Blaser, 2014), especially in cases such as the Hulu Kelay, where the historical and ongoing presence of conservation projects and timber concessions looms large.

The complex clientelist relations between Punan and other actors throughout Bornean river systems is historically and ethnographically well-documented and ranges across diverse actor groups. With the arrival of timber companies as a permanent presence in the area in the early 2000s, such concessionaires became the dominant patron for the Punan Kelay, with neighboring timber companies forming particularly strong

social and economic relations with individual villages. Four such timber companies today overlap with Long Lamcin's current territory, with their primary patron being PT Amindo, though the location and boundaries of these Hulu Kelay communities have shifted over time for myriad social, environmental, and economic reasons.

Despite the benefits gained from these patron-client relationships, including access to a generator for electricity and opportunities for employment, Long Lamcin villagers revealed substantial concern over the concessionary dominance of their landscape and its continued projected encroachment. Years of timber extraction were cited as the cause of myriad environmental impacts – from perceived changes in climate and decreases in species abundance to increases in wind speed from a lack of large trees. Perhaps most mentioned, however, was the concessionaires' lack of respect for existing customary rights and the governance obligations they entail to both human and non-human actors found throughout landscape. This lack of respect takes many forms, from the disruption of specific graves to transgressions over existing spirit territories. One Lamcin community member recalled showing a neighboring timber company where his friend was buried by a particular tree, only later to see that area bulldozed and his friend's grave desecrated. In the months before I arrived to stay in Lamcin, this frustration boiled over with the community performing a demonstration (*demo*), blocking a nearby logging road and confiscating heavy machinery keys in protest of their territory's destruction and the lack of respect paid to their customarily protected areas.

Having seen the march of oil palm plantations across Berau, communities in the Hulu Kelay worry that such environmental and cultural transgressions will only worsen. While certain villagers were open to the economic opportunities made available by

plantations, in Lamcin many more were suspicious and outright opposed, citing the potential loss of terrestrial and aquatic species abundance, disruption of masting dynamics, and subsequent loss of forest-based livelihoods. Indeed, one NGO practitioner based in Lamcin while I was there shared incredible stories of his time working for a community-based renewable energy project on the neighboring island of Sulawesi. Living in a village surrounded by a sea of oil palm, he contrasted clear economic gains for certain actors with dystopian tales of environmental degradation, from a once-surging river reduced to a parched canyon to residents, himself included, having to use hand-drawn pulleys to retrieve water dozens of feet below the ground for simple daily use.

Lamcin villagers are also apprehensive of plantation encroachment due to the question of rights, as they themselves lack both individual and communal statutory tenurial claims and are not logistically or financially equipped to contest potential outsider land grabs. These fears have led community members to seek help from NGOs to map the boundaries of their household agroforest and swidden agricultural fields in speculative anticipation of land certificates like *surat garapan* or Social Forestry agreements such as *hutan kemitraan* ("forest partnerships") between their villages and neighboring timber companies. They also led to my collaborating with the community of Long Lamcin to map a small piece of their namesake river, Ngui Lamcin, and its cultural landscape in hopes of both preserving knowledge for future generations and creating a living body of evidence to confront concessionary encroachment and protect their rights.

Passing the old village site to our right and community cemetery to our left, the canopy soon envelopes us as the river narrows and our speed slows. The change in color and temperature is immediate and noticeable as we turn left, away from the sun-drenched

Kelay river – the watershed's primary thoroughfare – and into the mouth of Ngui Lamcin, the *juru batu* (or "rock specialist") kneeling in front and navigating the longboat through shallows and up rapids. People's smiles grow as we go further upstream and the world becomes ever-more-saturated in a soft and warm green, textured with shoals, vegetation, and rock, and peopled with wildlife, ancestors, and spirits. I have made this trip many times in the past year – to help plant and harvest rice, map agroforestry fields, collect *durian* fruit, and look for trade-worthy *gaharu*. This time, however, two groups of us are heading up river with a particular agenda in mind.

Working with a group of five men who were active within Lamcin's myriad conservation NGO activities, and subsequently experienced with participatory mapping, we conducted a series of focus group discussions with community leaders and elders to identify potential candidate rivers and focal sites to map, eventually deciding on Ngui Lamcin and drafting a preliminary list of burial and spirit locations.

With the additional help of two elders with expert knowledge of the wider cultural landscape, we broke into two teams of four and spent four days on the river, employing GPS, GoPros, and digital cameras to multi-modally document 37 burial sites, 13 spirit landmarks, and 59 river branches along the Ngui Lamcin. Afterwards, we conducted expert interviews with customary leaders and elders regarding the history and meaning of these spirit landmarks, kinship ties to burial sites, and river names. I then worked with the field team to verify the spatial data we collected and construct corresponding point and line layers on QGIS.

Moving up and down respective sides of Ngui Lamcin, each team of four visited designated sites, photographing and taking geospatial point and track data as needed, and

experimenting with GoPro videos as we went, with the GoPros' wide lenses capturing both intimate views of *parang* (machete) technique and expansive shots of rushing water and textured surroundings. As we traveled the river, the elders would add to our list as they were reminded of burial grounds and spirit landmarks along the way. Together this work revealed a landscape steeped in what some scholars call a "more-than-human sociality" (Tsing, 2013) – captured in story and memory, embodied materially in the very shape of mountain sides and river banks, and punctuated by a solemnity and sense of respect, whether for the area's buried dead or agentive spirits guarding particular places.

The presence of spirits is ubiquitous throughout Southeast Asia and navigating and sustaining copacetic relationships with them is widely considered essential, as many are able to harm, sicken, and even kill people (Arhem & Sprenger, 2015). Looking to Borneo, spirits take many names and can occupy benevolent and malevolent forms, with certain ones having attachments to distinct landmarks, whether individual rocks and trees or area mountains and rivers (Duile, 2019; Janowski, 2015; Sillander, 2015). For Punan groups these sites extend to salt springs, wallows, dens, and burial grounds, among others (Janowski, 2015), including, as in the case of the Lamcin community, both individual landmarks such as trees and rocks to more extensive areas that housed crocodile dens, sago groves, and fallen remnants of mountain ridges.

In addition to being protected places, these spirit-imbued sites are often governed by culturally-mediated rules, lest one is harmed, made ill, or even killed. Stories of spirits and the consequences of angering them abounded, with Long Lamcin's previous customary leader at one point expressing sympathy for timber employees who in past years suffered unexpected accidents with machinery that could have been avoided if

spirits were afforded proper respect. Examples of such rules for Punan include the need to be quiet and refrain from speaking when near such places (Janowski, 2015), something we made sure to practice and observe throughout our mapping project's duration.

Much like the earlier discussion of crocodiles and other animal ancestors, such spirits arguably also offer an example of what Viveiros de Castro (1998) calls perspectivism, where human and more-than-human beings live together in the world equally as subjects and yet whose very selfhood shapes how they perceive it. As Arhem (2015, p. 7) explains, "the way all beings see the world (and themselves) is the same, but what they see differs from species to species," offering the example that what appears as blood to humans to a jaguar looks like people's daily staple of manioc beer. I heard similar points throughout my time in the Hulu Kelay, with people noting that animals' homes, whether in caves, underwater, or inside trees, are seen by them to be palatial and akin to hotels. As we traveled Ngui Lamcin, we documented a river bank cliff and abutting sand bar that in actuality is a large dwelling with an adjoining terrace that houses a plethora of spirits, and a *Menggeris* tree (*Koompassia excelsa*) that for spirits is pillar holding up a walking bridge for spirits to commute and traverse between mountain ridges. Duile (2019, p. 209) finds something similar for the spirits that occupy Dayak Bakati worlds in West Kalimantan, where what we perceive as trees, rocks, or other natural landmarks appear as longhouses to them.

Seeing these worlds, however, requires people possessing a special kind of eye. This eye, however, has largely been lost with the adoption of Christianity in the Hulu Kelay, a phenomenon seen more widely across Borneo (Connolly, 2004, 2009; Janowski, 2015). Despite this ongoing loss, or perhaps because of it, documenting these places and

their stories was felt to be important for the Lamcin community, as a way to protect unrecognized rights and keep this world and its presence alive for future generations.

Centering relationships in rights-based conservation

Beginning at our farthest landmark up Ngui Lamcin, we stopped a bit before a group of large rocks strewn across the river, evidence I later learned of an earlier, ancient fight between a porcupine and some children atop an adjacent mountain. Standing in the river with sun streaking across the water, we carefully took GPS points, pictures, and GoPro video for documentation. I turned to ask the elder who was accompanying us to perhaps explain what this place was, and why we were stopping here, thinking that standing and sitting in the place itself might elicit memories and stories harder to access from elsewhere. As I asked the question, however, my collaborators kindly but firmly reprimanded me, explaining that we were not allowed to speak or make noise in this place, both out of respect for it and out of fear for potential repercussions. Chastened and humbled, I carried this lesson with me as we turned back to continue our efforts and work our way downriver.

Over the last decade, rights-based approaches to conservation have become increasingly popular for reasons both moral and pragmatic. With improved conservation and climate change mitigation outcomes increasingly linked to locally-derived institutions and rights (Baragwanath & Bayi, 2020; Garnett et al., 2018; Stevens et al., 2014), scholars and practitioners both hope that REDD+ policy can advance more secure tenure rights for marginalized communities (Larson et al., 2013; Sunderlin et al., 2014). In the Berau Forest Carbon Program, this is pursued by state and civil society actors

primarily through Indonesian Social Forestry agreements that grant communities varying bundles of statutory, state-sanctioned rights where previously none existed.

Scholarship reviewing existing REDD+ projects, however, has found that despite calls to recognize diverse formal and informal systems of tenure (Felker et al., 2017; Hein, 2019; Johnstone, 2010; Mahanty et al., 2013), REDD+ efforts have "disproportionately" emphasized formal tenure rights recognition over customary rights (Birrell et al., 2012, p. 203) and in many cases actually "strengthen and centralise state control over forests" (Milne et al., 2019, p. 92). This bias towards formal rights and state control can be clearly seen in Indonesia's efforts at forest governance reform (DePuy in prep.) and clarifies Brenneis' (2003, p. 233) insight that "there may well be hidden costs in drawing solely upon a discourse of rights" to advance conservation justice and community empowerment.

These costs and limitations become especially clear when considering the expanded sense of sociality described in the sections above. Efforts to document and protect community rights in Berau's Hulu Kelay notably take many forms, from community-based forest patrols and Social Forestry agreements to the co-development of three dimensional physical maps with partner villages and high conservation value (HCV) reports produced for neighboring timber concessions. Absent across these mechanisms and outputs, however, is explicit attention to the power relations that shape these places and the concurrent relations of care required of actors to sustain them.

Centering relationships in rights-based conservation simultaneously widens the aperture of concern and shifts the unit of analysis and metric of success. On the one hand, it helps identify and situate the historical and contemporary actors that shape

complex conservation landscapes, from resource concessions and NGOs to wildlife, ancestors, and spirits. This places the political economic inequities undergirding Indonesia's state-centric tenure regime and the complex patron-client relationships found throughout Berau and the Hulu Kelay in clearer relief. Crucially, however, it also offers an alternative vision of environmental governance by expanding the definition of sovereign and social actors to include more-than-human beings like wildlife, ancestors, spirits, and more.

By highlighting the fundamentally social and relational nature of rights – that they are not simply socially constructed but socially enacted through relationships (Goodale, 2006a, 2006b; Wilson, 2006; Zerner, 2003) – this move aligns with increasing emphases on human-wildlife coexistence rather than conflict in conservation science (Carter et al., 2012, 2019; Oriol-Cotterill et al., 2015; Rio-Maior et al., 2019) and on well-being, care-taking, and relationality more broadly in SES and sustainability conversations (Bennett et al., 2015; Jackson & Palmer, 2015; Lejano, 2019; Singh, 2013, 2015; S. West et al., 2020).

Valuing the social compact between Punan Kelay and crocodiles requires being open to seeing crocodiles as beings with a long, shared history with people and deserving of trust and respect. Attention to these more-than-human social relationships could enable finer understandings of threat levels for certain species from particular actor groups, whether local communities or large resource companies. It could also produce more empirical understandings of lived tenure mosaics in Indonesia and open opportunities for conservationists to more purposefully collaborate with communities to

integrate invisible geographies and more-than-human territories requiring protection and respect into spatial planning and monitoring.

Such efforts to show respect across a territory's human and more-than-human inhabitants additionally might help reduce conflict and facilitate more sustainable relations between communities and other governance actors, whether the state, NGOs, or resource companies. In the end, such work allows new and different questions of rights and governance to be asked. As Daniel R. Wildcat (2014, p. 515) reflects:

> Can you imagine a world where nature is understood as full of relatives, not resources, where inalienable rights are balanced with inalienable responsibilities, and where wealth itself is measured not by resource ownership and control, but by the number of good relationships we maintain in the complex and diverse life-systems of this blue green planet?

Expanding conservation's social worlds and centering relationships in conversations regarding rights are two small steps towards advancing such a vision and ultimately more just and sustainable models of environmental governance in Indonesia and around the world.

CHAPTER 5

MAKING MULTIMEDIA MAPPING RESEARCH PRIVATE:

REFLECTIONS ON THE ETHICS AND POLITICS OF COMMUNITY RESEARCH[27]

[27] To be submitted to *Conservation Biology*

Introduction

What, I asked rural community members, did they think about the various non-governmental organizations and researchers who have pursued projects in their village over the years? And what would they like to see done differently? Over the year that I lived and conducted socioecological research in Berau, East Kalimantan, I asked residents of the Punan community of Long Lamcin these questions. What emerged were stories of friendship, gratitude, and occasional frustration with people who would come to collect data and then leave without the community seeing the results or knowing how their words and knowledge were used. These stories helped illuminate the long histories and complex social ties that have connected peoples in this place. It also reminded me of the governance roles both state and non-state actors can play in the lives of communities around the world, and, much like the Papua story that opened this dissertation, both the relational responsibilities of outsiders and the long-remembered implications of what is increasingly recognized as "parachute" research (Bastida et al., 2010; Bockarie et al., 2018; Stefanoudis et al., 2021; Vos, 2020; Yozwiak et al., 2016).

To end these interviews and conversations, I would ask community members how I might contribute something of value to Long Lamcin. Among the varied responses, there was a common desire for more historical documentation of their community's territory and to engage with what elders and community members experienced and knew. Multiple community members stressed the urgency of this due to the district government granting a resource concession license to the oil palm company, PT. Isera Sutra. While the land has yet to be cleared, the designated concession runs along the region's primary

river, the Kelay, stretching across Lamcin's territory and that of its Punan Kelay neighbors.

To better visualize and contextualize the complex and fraught relationships seen between communities and concessionary actors in Berau, I found myself needing to make a map. Figure 6 illustrates the heavily concessioned nature of East Kalimantan's Berau district, with timber and oil palm concessions shown in the left-positioned map, as well as the place of Long Lamcin within that matrix in the map to the right. The extent of PT. Isera Sutra's concession can be seen in that subsequent map's red layer spanning Long Lamcin's territory and two of its neighbors'.

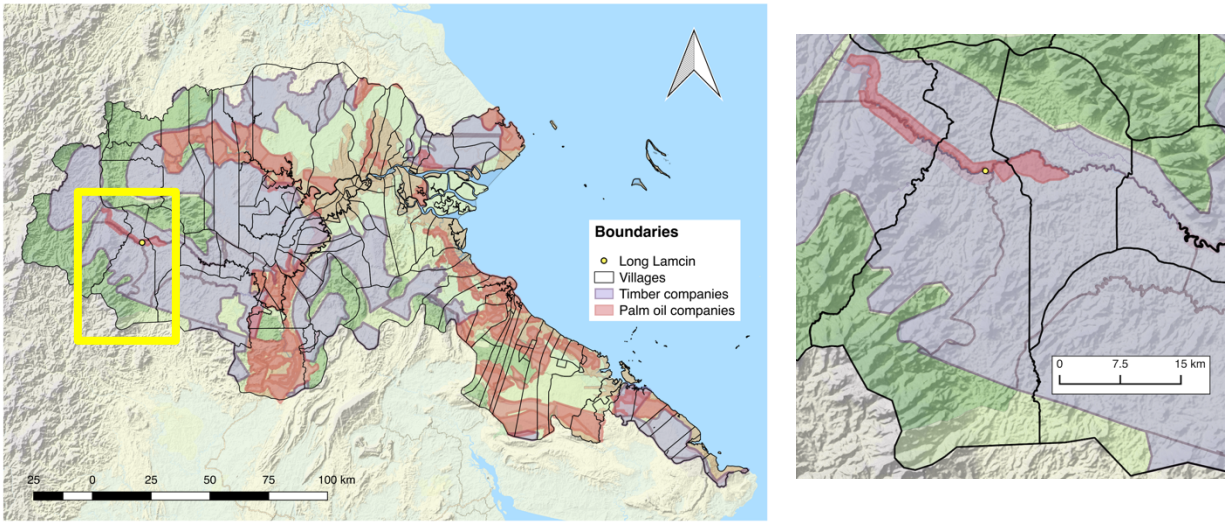

Figure 6. Village boundaries overlaid with timber and oil palm concessions. Left map: the entirety of Berau district, with Long Lamcin village highlighted. Right map: the territory of Long Lamcin. (Map by W. DePuy. Data from KPH Berau Barat, Badan Pusat Statistik, Dinas Pertanahan dan Tata Ruang, OpenStreetMap)

Throughout these Punan communities living in the upper Kelay river, the topic of oil palm generated mixed feelings. A majority of residents in Long Lamcin, however, steadily remained opposed, with many openly concerned about oil palm's impacts on the

area's ecological integrity, the sustainability of their livelihoods, and the peopled aspects of their territory not marked on any map. As one friend reflected:

> I am very worried because of that. According to the experience of friends who already have oil palm in their respective villages, it is very risky and has bad impacts, such as if the oil palm company has started to grow and the community in that place over time is increasingly marginalized [and] is no longer a priority.

Antecedents to a participatory mapping project

Across my university experience, at UGA and beyond, I have observed the fluidity of disciplinary boundaries and those between academia, practice, and community. I have also had the privilege to learn from across these groups, in particular regarding the responsibility and care required to pursue research of any kind, but, especially that with local and marginalized communities. While in Lamcin, I watched multiple NGO facilitators from local organizations such as Payo-Payo and Patriot Negeri work with the Lamcin community to further particular aspects of their tenure security in big and small ways. Devoting professional and personal resources and time, these efforts ranged from a Payo-Payo-sponsored QGIS workshop to a personal commitment from the Patriot Negeri facilitator to map every villager's swidden and agroforestry fields along the Kelay river. Such efforts demonstrated the growth and evolution of participatory and counter-mapping in Indonesia, whose long history (M. R. Fisher et al., 2020; Fox, 1988; Peluso, 1995; Radjawali et al., 2017; Radjawali & Pye, 2017; Sirait et al., 1994) speaks to a reaction against state-based power and the erasure of local peoples' presence, mobility, and rights to long-held territories and a drive to document those things not captured on official maps (Chapin & Threlkeld, 2001; Harley, 2002; Robbins, 2003; Rocheleau, 2005; Velásquez Runk et al., 2010; Wainwright & Bryan, 2009).

As I joined and helped in these activities, and spoke with both the NGO facilitators and community members, the central place of maps as evidence for land rights claims was both implicit and explicit in their pursuit. "Mapping," as Peluso (1995, p. 402) wrote nearly twenty years ago, "is a tool that speaks a language both national and international resource planners and managers can understand," and indeed today it can be said that "we live in a map-saturated world" (Dodge et al., 2008, p. 3). This desire to be "seen" by the state, to possess spatialized data to articulate claims for the future and stave off marginalization and environmental impact, is a common rationale found throughout Asia and across the world (Fox et al., 2005). It is also a key reason for the growth and development of fields like participatory GIS (Johnson et al., 2005; Rambaldi et al., 2006) and the increasing use of aerial technologies like drones for counter-hegemonic purposes (Radjawali et al., 2017; Radjawali & Pye, 2017). That same friend – who himself during this time helped design and implement these mapping projects – explained:

> We have to map the land so that we have the power to stem [*membendung*] [oil palm's reach] and we obtain land. Later, if the oil palm company comes, I don't [have] land, we don't legally have gardens/fields *[kebun*] that belong to us, and [if] the company comes later, we won't possess power there. So it is very important that we have a certificate letter that legally proves ownership of the land.

And yet, the dangers and challenges long-identified in such efforts remain, as the concepts and technologies used to create maps can obscure and erase local and Indigenous conceptions of space and place (Feld & Basso, 1996; Fox et al., 2005; Ingold, 2002b; Nyerges & Green, 2000; Tuck-Po, 2016; Turner, 2003; Zerner, 2003), and efforts to territorialize land can subsequently alter relationships to it, creating sources of conflict within and between communities and other stakeholders, and ultimately impose a fixity at odds with existing fluid and mobile cultural systems and the diverse beings associated

with them (Fox, 2002; Fox et al., 2005; Peluso, 1995; Peluso & Lund, 2011; Rocheleau, 2005; Vandergeest & Peluso, 2006). As Wood (1992, p. 1) notes, "interests are embodied in the map as presences and absences," creating the coexisting potential for empowerment and disempowerment in such counter-mapping work and raising crucial ethical questions in their wake (Fox et al., 2005; Rambaldi et al., 2006). To counter these effects, some communities, researchers, and other collaborations are centering Indigenous, artistic, and other representational forms to try and move beyond the constraints of two-dimensional Cartesian space and Western epistemologies and illuminate rights-holders and relationships otherwise so often left off maps (Hecht, 2020; Hirt, 2012; Kelly, 2021; Louis, 2004; Roth, 2009; A. M. Smith, 2021).

Using multimedia to counter-map a cultural landscape

I grappled with these tensions during a 2014 course in my Ph.D. program called the "Anthropology of Landscape." Combining geospatial methods from drones, video cameras, and GoPros with GIS training, diverse literatures, and contemporary examples allowed us to think creatively, critically, and holistically about landscapes. The course also enabled us to experiment with how multimedia might facilitate new anthropological understandings of places and how such data might be useful for partner communities. From this course's inspiration, in 2016 I borrowed a GoPro from the instructor's (Dr. Julie Velásquez Runk) lab and brought it with me to Indonesia.

Later that following year, while joining a community forest patrol, community members and I experimented with the GoPro to great enjoyment and effect, and several months later during a trip to Jakarta, I used research funds to purchase another, along

with other tools like a GPS unit similar to what the community forest patrol group was using. These purchases proved helpful for the swidden and agroforest participatory mapping activities organized by the facilitator from Patriot Negeri. In teams of two and three, divided between myself, the Patriot Negeri facilitator, the Payo-Payo facilitator, and four-to-eight community members, we walked with villagers around their fields, recording the boundary in real-time through GPS and GoPro video, annotating information about the field's age and composition, and capturing explanations if discrepancies or uncertainties regarding the boundary arose. At times these activities required hiking with two community members who together decided where particular borders meet and divide. Throughout this process, we discussed both the benefits of these GPS tracks for pursuing land certificates, as well as the videos' potential value as useful documentation to help resolve future disputes.

It was out of these experiences that I began conversations with the Lamcin community to co-develop a participatory mapping project with them. I expressed a desire to contribute in some small way to the community history about which I had heard repeated interest, as well as to further the momentum and skills-sharing already existing around mapping in the community. To begin, we held two focus group discussions with community elders and leaders to identify focal regions and specific places of interest to map. What came out of these discussions was a desire to focus on burial grounds (*kuburan*) and spirit landmarks (*keramat*) along their territories' rivers. After considering the calendar and our projected timeline, we decided to pilot our work on their namesake river, Ngui Lamcin, that they feel is especially threatened by both contemporary timber companies and the potential entry of PT. Isera.

The term, *keramat*, was chosen by the Lamcin community to use in our mapping activity. While its common definition of *suci* ("Keramat," 2016), translated as "sacred" or "holy," has long been identified by Borneo ethnographers as inadequate to capture Bornean communities' relationships to their landscapes (Brosius, 1997, 2001; Tuck-Po, 2016) – despite the concept of the "sacred" being found in much Indigenous and conservation discourse (Berkes, 2017b; Carmichael et al., 2013; Davis et al., 2021; Hornborg, 2016; Salick et al., 2007) – its secondary definition refers instead to the presence of a spirit resident or guardian (*bertuah* ("Keramat," 2016)) and more closely aligns with both Punan Kelay cosmology and our project's goal. This definition helps ground my translation of *keramat* here as "spirit landmark."

Throughout Indonesia broadly and Borneo in particular, spirits take many names and forms, both material and immaterial, and can possess benevolent or malevolent dispositions. This diversity was captured in the myriad words used to discuss and describe spirits by Punan Kelay community members, whether in the Indonesian language (*gaib, jin*, *roh*, *iblis*, *setan*, and *hantu*) or their own Mapnan (matau, bilau, mdal, hawat, and walgun). Importantly for this mapping project, much like other Indigenous communities around Borneo (Duile, 2019; Janowski, 2015; Sillander, 2015), certain spirits also have attachments to distinct landmarks, from individual rocks and trees to wider geographies of area mountains and rivers. For Punan groups in particular these landmarks can include salt springs, wallows, and dens, among others, (Janowski, 2015), and in the case of the Lamcin community these commonly included large stones (wutai), river pools (t'kung), and river banks with distinctly yellow water (s'pan). These sites are identified as places of import, where either spirits reside (*penghuni*), outside normal

human perception and often having caused strange occurrences in the past, or that are under a particular spirit's protection (*penjaga* or *penunggu*). Together this helps explain why the translation "spirit landmark" is helpful in both separating the term, *keramat*, from the conceptual confusion of "sacred/holy," and clarifying the spatializing act this mapping project intended: that is, to geographically mark culturally and historically important landmarks for the Lamcin community.

Our project's purpose, however, was not to merely spatially map such landmarks but to develop a mixed and multimedia methodology that brought together multiple lines of evidence, in the form of digital pictures, GoPro videos, GPS points, and expert interviews, to help capture a lived, peopled, and storied place. In designing this project, we considered in particular how this approach could help provide educational materials for local children, whom community members were worried did not know this landscape's history. We were also attentive to its value in helping resolve future disputes, including how prior time-stamped videos of particular places could be compared to future conditions and potential help monitor for, and mitigate against, concessionary encroachment. We were also excited to try and develop these methods together. In the end, we mapped 13 spirit landmarks, 37 burial sites, and 59 river branches along Ngui Lamcin.

Keeping maps private

The ethical component of this project was never far from our minds, as Lamcin residents regularly voiced apprehension over local information and knowledge potentially being exploited for profit or endangering particular places or landmarks in the future.

Such concerns are widely found in communities around the world (Davis et al., 2021; Fox et al., 2005; Inogamova, 2009) and raise fundamental questions regarding what can and should be shared with outside actors, how might project outputs be coopted by state or non-state entities towards other unintended ends, and how best to create and share products from such projects in useful and equitable ways (Collins & Durington, 2017; Fox et al., 2005; Harper & Gubrium, 2017; Mannay, 2019; Rambaldi et al., 2006; Takaragawa et al., 2019).

Adding our mapped GPS track of Ngui Lamcin atop earlier resource concessions layers provided context to the concerns voiced by the Lamcin community regarding both the oil palm plantation's potential impact to their territory, as well as the possibility for specific knowledge regarding that territory to be misappropriated or misused. Figure 7 below shows a zoomed-in portion of Long Lamcin's territory and the overlapping timber (purple) and oil palm (red) concessions from Figure 6.

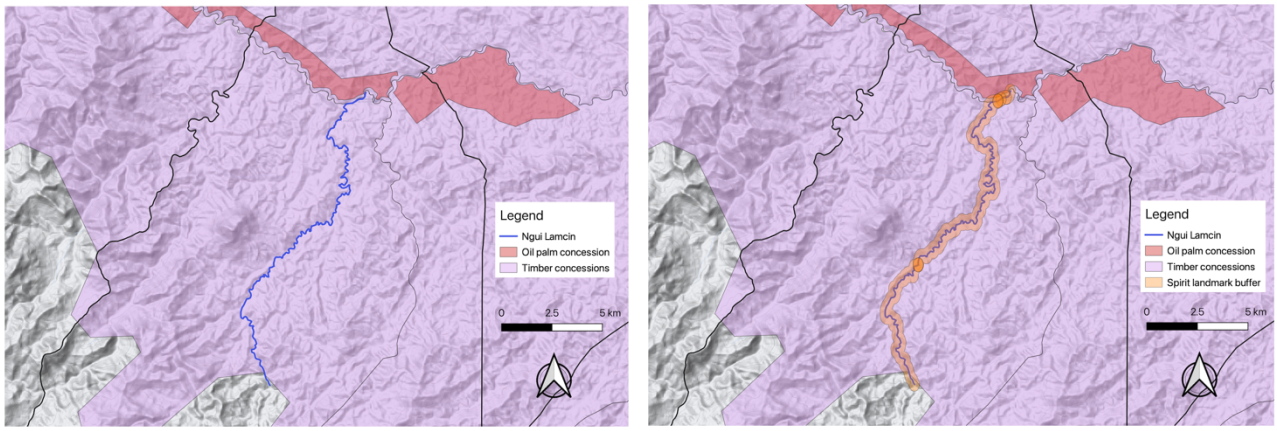

Figure 7. Resource concession and spirit buffer overlap. Left map: the Lamcin river we mapped. Right map: a spirit landmark buffer atop the Lamcin river. (Map by W. DePuy. Data from KPH Berau Barat, Badan Pusat Statistik, Dinas Pertanahan dan Tata Ruang, Google Terrain Hybrid)

On the left is the path we traveled along Ngui Lamcin in blue, and on the right is a non-specific buffer layer representing the spirit landmarks we mapped. Together these maps demonstrate the clear overlap of spirit geographies with formally-recognized concession areas and the source of the community's concern.

From the increasing use of visual- and other sensory-based data in anthropology, conservation, and other fields (Perry & Marion, 2010; Pink, 2011; Ritts & Bakker, 2021) to the growing infatuation with "big data" seen across both science and industry (Leurs, 2017; Nost & Goldstein, 2021), there is now more than ever a need to be sensitive to the unseen power in the data that we collect. For our mapping project, this meant taking a conscientious look at the consequences of sharing certain information and publishing certain data, therefore rendering it public. Much like some knowledge is fundamentally place-based, so is some research and data as well. One expression of this fact can be seen in growing calls for, and recognition of, Indigenous data sovereignty over collection, ownership, and application in research, policy, and practice (Kukutai & Taylor, 2016; Lovett et al., 2019; Walter et al., 2021; Walter & Suina, 2019).

Understanding our collaborative mapping project as not only an ethical commitment to Lamcin but an endeavor tied to guarded knowledge and sensitive data, I decided not to publish our work in popular or academic outlets. Instead, after discussions amongst ourselves and with the Lamcin community, we decided to create a cultural landscape booklet for the community's use however they would like. We began drafting the short booklet that spring and summer of 2018, and I continued to review the data after returning to the United States, identifying inconsistencies or locations to revisit in the future. I planned for a digital copy appropriate for smartphones and amenable to all our

datasets, as well as an eventual hard copy version that is more materially and climatically appropriate for conditions in Long Lamcin. Community members expressed that a waterproof hard copy would be a useful historical record and resource for educating their children. It would also be a more accessible format for many residents, both given the lack of smartphones amongst many individuals and the lack of consistent internet signal in the area.

In summer 2019, I returned to Lamcin to update our mapping work, identifying with the team new places along Ngui Lamcin to map before ultimately presenting the community with our preliminary results and a first digital draft of the booklet. I have now adapted the booklet to be a multimodal website that integrates photographs, video clips, maps, and interview data to describe our project and the spirit landmarks we identified. This website will not be publicly available but rather is designed for private community use as they see appropriate. Figure 7 below offers examples of pages from this website, including one of descriptive text and images (with the faces obscured) and another showing a blurred image of a spirit landmark and its accompanying history. Once the website is finished, I will identify an appropriate platform and publisher for the hard copy version. I am eager to share both products with the Lamcin community when I see them in person again.

Figure 7. Example pages from multimodal website

Conclusion

This short reflection outlines a collaborative, multimedia mapping project that aimed to visualize and elucidate historical and cultural sites of importance for the Punan Kelay community of Long Lamcin. With their territory regularly impacted by logging

concessions and facing incursion from oil palm, there is a real desire by the community for visual and written records of their lived presence on the landscape. Such records have the potential to be sources of evidence to contest incursions, promote claims of both Indigeneity and land ownership, and act as education materials for future generations.

This project is its infancy and is one attempt to use mixed methods in the service of ontological pluralism. Ultimately, I hope this work can help document the existence of an Indigenous territory in a landscape otherwise fully concessioned, as well as help reflect on the challenges and openings seen in collaborative, multi-modal counter-mapping. I hope to find opportunities in the future to continue and expand this work and in so doing expand the conversation about community rights to be more consciously attentive to more-than-human geographies in complex conservation landscapes like Berau.

There is increasing attention today to the need for collaboration and knowledge co-production across research spheres, as well as explicit calls to confront the coloniality of conservation's past that continues to shape its present. By highlighting the choice to make some culturally-sensitive data private and unpublished, this work posits that the concept of strategic communication contains multitudes, that ethical collaboration with certain groups sometimes means strategically not communicating with others. Engaged, integrative research calls for creatively creating spaces for new voices, new ideas, and new alliances. In the end, I hope this work provides one small example of this.

CHAPTER 6

CONCLUSION

In this dissertation, I have explored the relationship between rights-based conservation, REDD+, and relationality in East Kalimantan, Indonesia. This dissertation opened by asking about the parts and processes of environmental governance not easily measured and scaled by conservation actors and organizations, how those challenges are being navigated today, and what lessons might be learned to aid the safeguarding of community rights and the promotion of conservation justice more broadly. To answer these questions, I focused on a flagship Indonesian REDD+ project, the first to operate at the landscape scale, and analyzed it using political ecology, STS, ontological, and Indigenous scholarships.

This multi-sited ethnography revealed a great many contradictions within and across REDD+ governance. Despite the centrality of REDD+ to Indonesia's national Green Growth agenda and wider constellation of forest governance policies, for local communities and conservation actors, it was largely invisible as a concept and goal. Similarly, while I found REDD+ social safeguards driving trends in, and incentives for, conservation organizations at international, national, and provincial governance levels, they became an increasingly foreign term as I traveled to the district and village levels. And yet, amidst all this obscurity, my research also revealed that rights-based priorities

were being pursued by NGO and state actors alike across the BFCP, from SIGAP's purposefully participatory framework to myriad efforts at community land tenure reform.

Looking back, the Integrative Conservation program aims to create "agile" scientists that are able to look beyond "win-win" prescriptions and instead navigate and respond to the reality of 21st century social-environmental challenges. In pursuing my dissertation, I therefore wanted to be both critical and constructive with my work. This can be seen in how I designed my research to engage diverse stakeholder groups at multiple governance levels, to gain their perspectives and appreciate their vantage points. It can also be seen in how I conceived my dissertation's content, with each chapter focused on a contemporary priority or concern in conservation practice, from the embrace of landscape-scale conservation to the challenges of scaling up conservation policy to the recognized need for community-based collaboration. Lastly, this desire to be constructive was the driving rationale for my participatory mapping project that brought ethnographic methods, counter-mapping, and multimedia together to create a multimodal website and planned cultural landscape booklet with the Long Lamcin community. I hope it is a small step towards putting some of the lessons elucidated below into practice.

Through one lens, then, the Berau Forest Carbon Program is a story that speaks to the evolution of conservation practice as a field actively seeking to confront its exclusionary past and advance a more consciously-inclusive future. Examples like the BFCP highlight the role REDD+ policy has played in centering human rights in conservation work. From its emphasis on forest governance reform through village spatial planning and the promotion of sub-national forest management units (FMUs) to its active pursuit of community engagement at the village level through SIGAP, the BFCP

on the surface achieves the REDD+ social safeguards requirements to promote transparent and effective forest governance, respect for local and Indigenous knowledge and rights, and full and effective stakeholder participation. Similarly, looking specifically at SIGAP, its explicit and requisite mechanisms for obtaining free, prior, and informed consent (FPIC) agreements with participating communities, its targeted facilitation of Social Forestry arrangements, and its emphasis on village governance capacity building show a clear rights-based agenda focused on community consent, tenure rights security, and local empowerment.

From a different viewpoint, however, the Berau Forest Carbon Program is a cautionary tale for conservationists, whose focused attention at the community level obscures the project's lack of success to date towards its REDD+ emissions reduction goals, as noted in the beginning of my dissertation. While the BFCP has arguably been successful in tying together Indonesia's forest governance reform, REDD+, and wider green growth agendas, deforestation continues and corporate actors eschew TNC's strategies to promote "better practices." SIGAP in this light appears to be a framework meant to accommodate these governance paradoxes from the bottom-up, and while TNC has been successful in developing a community engagement platform for village land use planning in SIGAP – whether reducing household swidden, developing RPJMs, or promoting Social Forestry schemes – the question remains of whether the SIGAP-REDD+ and now SIGAP Sejahtera programs ultimately are mistargeted: focused on village-level change when the emphasis and weight of REDD+ should instead be on the wider structural drivers made manifest in timber, mining, and oil palm concessions.

The case of the BFCP and SIGAP also has notable implications for the practice and potential of rights-based conservation. While held up as a standard by TNC scientists and practitioners for community-level rights-based approaches and REDD+ safeguard mechanisms, I find that the SIGAP protocol in its support of Indonesia's Green Growth agenda reinforces Indonesia's political economic status quo and subsequently curbs and curtails community rights. This is seen most clearly in SIGAP's performance-based payment agreements and the contractual reduction of communities' resource use around swidden agriculture. This emphasis is particularly ironic given that many tropical forests around the world possess high levels of biodiversity and their current ecological assemblages due to their shared history with local and Indigenous communities, the sustained presence of local resource institutions and rights, and in many cases diverse forms of shifting cultivation (Baragwanath & Bayi, 2020; Garnett et al., 2018; Mertz et al., 2009; Padoch et al., 2007; Padconh & Pinedo-Vasquez, 2010; Persha et al., 2011; Rerkasem et al., 2009).

At the same time, the incentivization of more sedentary, market-based agroforestry for village households pushes against community tenure regimes in favor of land privatization and promotes a definition of "tenure security" at odds with past community mobility and flexibility, instead circumscribing communities' and households' territories and rights to fixed positions and administrative boundaries. This narrow definition of tenure clarity and security is similarly promoted to justify Social Forestry arrangements that themselves stabilize state and concessionary control of forests and render invisible myriad livelihoods, land uses, and more-than-human beings that undergird sustainable and respectful social-ecological relationships in these places.

Lastly, the example of SIGAP shows the complex interplay between rights protection and policy translation. In particular, I argue that it shows a clear need to pay closer attention to if and how both local facilitators and local communities understand conservation programs like REDD+, rights-based approaches like SIGAP, and rights-based concepts like FPIC. There is similarly a need to pay closer attention to both historical and cultural context when considering the implementation and interpretation of rights-based concepts. This was seen with the example of FPIC and *sosialisasi* and illustrates the importance of asking what similar concepts or terms might already exist in popular discourse and practice and how that might affect the protection of community rights. The adaptation of SIGAP from a community engagement protocol to a social media app also demonstrates how the process and substance of rights protection can change in REDD+ programs and that this dynamism needs to be recognized in order to ensure rights like FPIC are respected and communities' voice and grievance mechanisms against rights violations are not undermined.

In the end, the focus on human rights in conservation practice speaks to generations of struggle and should be seen as a triumph. However, there remains the danger that rights-based approaches become seduced by the dream of panaceas (Ostrom et al., 2007), captured by the managerialism and reductionism of audit culture (Brosius & Hitchner, 2010; Kirsch, 2014), or lost to the cycle of conservation fads (Redford et al., 2013), as some argue has already occurred with REDD+ (Lund et al., 2017). With rights-based agendas growing in popularity across governance realms, I hope this work provides a valuable case study for how mechanisms like REDD+ social safeguards are empirically translated and enacted on the ground and what lessons practitioners can learn from it. I

will now review my chapters' findings and point to potential avenues for further research before concluding with broader lessons for conservation practice.

Chapter summaries

In my second chapter, I investigate the relationship between landscape-scale and rights-based conservation agendas, asking: how are rights-based instruments incorporated into landscape approaches? I follow Foucault's recommendation to study "techniques and procedures of power…at the most basic levels" (1980, p. 99). In so doing, I notably find that these agendas mutually support each other. This co-production (Jasanoff, 2004) helps empirically document both the lived practice of landscape approaches and how the work and very purpose of rights-based instruments like SIGAP can become "displaced, extended and altered" (Foucault, 1980, p. 99) by global political and economic interests.

In my third chapter, I build on my study of SIGAP and its social media app to focus on the increasingly central, rights-based concept of free, prior, and informed consent (FPIC). By ethnographically tracing the "social practice of rights" (Goodale, 2006a, p. 3), I show how policy concepts like FPIC are living and dynamic, shaped by history, culture, and power. This can result, as in the case of the BFCP, in multiple translations of FPIC coexisting and interacting in a single project, whether as PADIATAPA through a written contract, the social practices of *mendekati* and *sosialisasi*, or the SIGAP stage of "Disclosure" on their app. This work ends on a note of concern, raising the question: as the trend of scalability gains prominence in conservation and platforms for safeguarding rights are increasingly rendered digital and scalable, what might be lost from view for policymakers and practitioners?

In my fourth chapter, I shift my attention to the Hulu Kelay and the long-standing threat of encroachment and presence of tenure conflict there. Bringing together songs, stories, and in particular the participatory mapping project I co-developed with the Long Lamcin community, this chapter emphasizes the centrality of patron-client relations in shaping the Indigenous territories here, whether timber resource concessions or REDD+-enacting NGOs. It also showcases an expanded roster of human and non-human – material and immaterial – actors that likewise populate this landscape and contribute to its wider governance. Ultimately this work draws on Indigenous scholarship to highlight the social and relational nature of rights in the Hulu Kelay and ask how expanding conservation's social worlds to include spirits and ancestors alongside resource patrons might shift the unit of analysis and metric of success for respecting and protecting community rights in conservation practice.

Lastly, I conclude in my fifth chapter with a brief reflection on my participatory mapping project and the cultural landscape booklet developed from it. I explore the ethical decision to pursue and co-develop this project and the resulting booklet, as well as the decision to keep some of the mapping data private, out of publication, and specifically for community use. I end noting that this booklet is one small attempt to strategically use mixed methods in the service of ontological pluralism and increasing the capacity of communities to give voice to more-than-human geographies in conservation landscapes like Berau.

Future directions for research

A central call across my chapters is the need for more targeted and nuanced interrogation of rights-based agendas and instruments as potential anti-politics machines (Ferguson, 1994), technologies of power and government (Ferguson, 2006; Foucault, 1980), and tools of environmentality (Agrawal, 2005). More specifically, I feel there is a need to ask how such agendas and instruments might render certain aspects of peoples and places technical – and therefore legible – while obscuring crucial questions of power and justice from view (Li, 2007; Scott, 1998). As with the example of the smartphone that appeared in two chapters, such questions are only becoming more relevant, as surveillance capitalism (Zuboff, 2015) finds new agency through the infrastructure and capillaries of cyberspace and "smart" tech aspirations spread across fields as seemingly disparate as urban planning and bioacoustics.

My work also raises the possibility of the limitations of scalability in the realm of conservation and in particular the potential for fundamental tensions between scalability and the protection of community rights. A second direction for future research would center on the politics of scale and investigate what a rights-based agenda looks like that embraces nonscalability instead (Tsing, 2012). What voices, knowledges, and stories would this endeavor instead allow? What tensions and frictions would it expose in particular places and projects, as well as environmental governance more broadly? And what paths forward would it enable?

A third need for future research is to look more squarely at the "hidden costs" that Brenneis (2003) alluded to regarding the dominant Western frameworks of rights so often seen in global environmental governance and rights-based agendas. The research

presented here suggests, as others have (Zerner, 2003) there are clear limits to what such a definition of rights, predicated on individual possession rather than social relationships, can empower and protect. Several avenues then open up for further investigation: what would centering justice rather than rights facilitate? How might research collaborations with, or led by, Indigenous partners change the ontological terms and relationships open to debate?

Broad lessons for conservation practice

To close, I believe my work offers several broad lessons for conservation practice in its development and pursuit of rights-based conservation. My second chapter illustrates that **rights are fundamentally *political***. That is, their content, and subsequent mechanisms to safeguard them, are shaped by the political economic systems they are embedded in, whether green growth agendas, extractive regimes, or the complex interplay of both. The role of power in influencing the scope of rights and their safeguards is evidenced by the emphasis we see in SIGAP to incentivize local communities to reduce swidden agriculture or the ways social forestry policies themselves reinforce state land use and land tenure categories.

The creation of a social media app similarly illustrates how rights-based approaches are subject to substantial change and that these changes can affect which rights are prioritized, whether it is a field-based emphasis on community participation or a social media emphasis on multi-stakeholder engagement. The evolution of rights-based instruments can also have planned and unplanned political consequences – whether the creation of new responsibilities, such as the power of content moderation and censorship,

changes in governance structures that hold different understandings of attendant rights and need for their protection, as speculated by NGO actors about the district government's use of SIGAP Sejahtera, and changes in perceptions of the instruments' purpose, capacity, and implications, as seen with NGO practitioners' reduced levels of trust regarding the SIGAP social media app.

My third chapter highlights a second, related lesson: namely that however clearly defined rights may be in policy or protocols, their meaning – and thus their protection – is dependent on their translation across actor groups and governance levels. Rather than isolated from society or cemented in form, **rights instead are *lived* and *social***. The possibility for misinterpretation of rights like FPIC was clear throughout research as NGO actors alternated between concepts shaped by practice, culture, and history, from "Disclosure" and *mendekati* to PADIATAPA and *sosialisasi*. And while the SIGAP social media app holds the potential to enhance FPIC's documentation and transparency, its potential for misuse, whether intentional or unintentional, should not be discounted. The drive to scale out and scale up SIGAP as an app calls to mind the increasingly connected, and mediated, worlds we live in and the attendant need to be increasingly vigilant about what that means for peoples' well-being and rights.

My fourth and fifth chapters bring together these two lessons to make the simple point that ultimately **rights are *relational***. Their protection and transgression are shaped by and enacted through relationships. As seen with the example of Punan Kelay communities, these relationships can extend between both humans and nonhumans, as relationships of power, fear, care, or respect. Attention to the relational nature of rights can help clarify sources of tension and conflict between stakeholders whether

communities, NGOs, or resource concessions. Perhaps more importantly, however, this attention also illuminates the importance of allies in efforts to secure them, seen most clearly during my time in Lamcin through the passion and labor of NGO facilitators working to support and build community capacity around participatory mapping towards local tenure security.

In the end, I hope this dissertation sparks enthusiasm to celebrate the opportunities found in the embrace of human rights in conservation practice and to confront the challenges facing their promotion and protection across complex conservation landscapes.

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APPENDIX A

PUNAN KELAY AND ETHNOHISTORICAL DEBATES

As mentioned above, Berau's Hulu Kelay region is shared between six Punan communities. While known as Punan Kelay/Kelai in the literature (Guerreiro, 1985; Holmsen, 2006; Mardiyaningsih et al., 2018; Simandjuntak, 1967), the communities self-identify as Mapnan. These communities' relationship both to other Punan/Penan groups and the wider constellation of Indigenous communities captured under the term "Dayak," however, is contested. This section briefly examines this controversy through a review of the literature and my ethnographic research.

The autonym Mapnan has been documented by multiple ethnographers and linguists over the years (denoted by Guerreiro (1985) as "Mnan" and Soriente (2014) as "Ma' Pnaan"). When pressed on the distinction between themselves and the broader category "Punan," however, community members' responses varied, saying it referenced a simple Punan subset to a clearer lifeway division between mobility and settlement[28].

Archival documentation suggests the Punan Kelay originated from the Kayan river headwaters in the Apo Kayan region of East Kalimantan and migrated into Berau in the early 1800s, following Segai Kayanic peoples fleeing Kenyah raids for land and heads in the preceding decades[29] (Guerreiro, 1985; Obidzinski, 2003). Similar accounts of Punan entering the Apo Kayan during the 19th century due to neighboring headhunting expeditions is seen elsewhere in the literature (Sellato, 2002). The cultural relationship between Punan Kelay and their Segai/Ga'ai neighbors is well-established. However, a controversial thesis builds on that of Hoffman (Hoffman, 1983, p. 195) to argue that

[28] This distinction between nomadism and settlement is potentially substantiated by one derivation of *Mapnan* as "Uma' Punan" (Brosius pers. comm. 2020), with "uma'" meaning "longhouse" or "village" (Okushima, 2006, p. 117). This appears aligned with, and similar to, "Ma' Pnaan" from Soriente (2014).
[29] In particular, these Kenyah groups included Lepo Maut, Uma Tau, Uma Kulit and Uma Baka (Obidzinski, 2003).

Punan Kelay are in fact "secondary" hunter-gatherers derived from Ga'ai populations before in turn migrating from the Apo Kayan and entering the Segah and Kelay headwaters (Okushima, 2008).

Lines of evidence presented to support this "Punanization" (Okushima, 2008, p. 200) include linguistic research that shows the Mapnan language is not a Punan language at all – phonologically, lexically, or morphologically – but instead a Segai-Modang Kayanic subset (Guerreiro, 1985; A. D. Smith, 2017; Soriente, 2014), notably similar to Ga'ai (Guerreiro, 1985). Detailed ethnohistorical and ethnographic data further support a historical relationship between Segai and Punan Kelay peoples, whether speaking of their shared place of origin at Kong Kemul – a mountain bordering the Apo Kayan at the Kelay headwaters – or genealogical figures that remain present across these communities' oral histories, such as Bong Dilay (Okushima, 2008). Okushima (2008) in fact points to a specific story, in which a Ga'ai (Long Nah) woman's domestic pig got loose and destroyed her brother's farm. Being the chief, in his anger he prohibited her from further farming and banished her from the village. In response, the young woman led a group out of the Kayan, and they became "'Punan Long Way,' namely, hunter-gatherers who follow after the Long Way and Long Nah," eventually branching off into multiple Punan groups, to include the Punan Kelay (Okushima, 2008, p. 200). Many of these historical connections were visible during my own fieldwork as well – from the strong linguistic commonalities between Punan and Ga'ai, to the respect and kinship felt for Bong Dilay and other ancestors by Punan Kelay, to the commonly-held origin story of the area's Dayak communities coming from Kung Kemul. Positing such shared origin stories, linguistic roots, and ethnohistorical figures, however, as evidence that Ga'ai

groups “Punanized” to become Punan Kelay highlights a persistent and ongoing debate in anthropological circles.

As an ethnic group, the category Punan has a long history of contestation, whether regarding its relationship to Penan of Sarawak (Harrisson, 1949; Needham, 1954) or the directional transition for Punan/Penan peoples between foraging and agriculture (Brosius, 1988; Hoffman, 1983; Sellato, 1988, 1993, 1994; Soriente, 2014). Using the Punan Kelay as one example, Hoffman (1983) has posited that instead of seeing Punan as a separate ethnicity from their agriculturalist Dayak neighbors, they should instead be understood as agriculturalists who became “nomadic” specialists in forest product trade. He based this conclusion on fieldwork that spanned Borneo showing both a high degree of cultural heterogeneity between Punan and a high degree of cultural similarity between Punan communities and their agriculturalist neighbors, whether linguistically, technologically, or otherwise (Kaskija, 2017). This in-group diversity and out-group homogeneity led him to conclude that Punan are not an independent ethnic category but instead all and everywhere “derive .. . from sedentary agricultural peoples” (1983, p. 195) and are driven to a mobile livelihood by “economic specialization” (1983, p. 164). “Punan do not trade in order to remain nomads;” he wrote, “they have instead remained nomads in order to trade' (1983, p. 171).

While this theory has gained support from linguists, archaeologists, and others over the years, highly-respected Borneo ethnographers disagree, contesting the theory as overly simplistic and grounded in shallow fieldwork and non-rigorous scholarship (Brosius, 1988; Kaskija, 2017; Sellato, 1988). Bornean ethnography has long made clear that identifying clear, isolated differences between communities, whether across language

or cultural trait, is largely a fool's errand (Chua, 2007; King, 1982, 1993, 2013; Rousseau, 1990), especially given the long historical record of mobility, adaptability, and fission-fusion dynamics concerning cultural practices, languages, and identities between Dayak groups (King, 1993; Sellato, 1994). Additionally, Kaskija (2017) makes the point that substantial heterogeneity within hunter-gatherer groups is found throughout the world, and as for shared language and cultural traits between Punan and their agriculturalist neighbors, he posits: "An alternative, and I would say more likely explanation, is that they readily adopt cultural features, language or almost anything from neighbouring peoples, and therefore often share many similarities with their immediate neighbours" (2017, p. 138).

Notably, there are only two groups of Punan/Penan whose languages do not contain the ancestral lexical markers identified by Sellato (2002) found in other Punan languages: the Eastern/Western Penan of Sarawak and the Punan Kelay/Segah of Berau (Kaskija, 2017). Kaskija reflects that while the similarity between the Punan Kelay/Segah and Ga'ai languages led Hoffman, Okushima, and others to suggest a transition from sedentism to nomadism for the Punan Kelay, the similarities of the Eastern/Western Penan with certain Kenyah languages have been interpreted in the other direction, "not as an indication of Penan being former Kenyah agriculturalists, as suggested by Hoffman, but rather as an indication of Kenyah being former hunter-gatherers, as suggested by Whittier (1973: 23)" (2017, p. 138). Ultimately, such diametrically-opposed conclusions only reinforce Brosius' argument that such a question of primacy and origins is at its base "a non-problem, in that it is unresolvable, except by resorting to the most tenuous sort of conjectural history" (Brosius, 1988, p. 87).

What should be taken away from this slight narrative deviation is that tracing clear cultural histories across such spatial and temporal spans is challenging if not impossible and that what emerges is a "fluid picture" of "mixed livelihood systems" and "great social and economic diversity and entanglement" (Kaskija, 2017, p. 147). This entanglement was clear in conversations with Long Lamcin individuals as well, including my elder neighbor who proudly would proclaim himself and his sister *asli* Punan, or "original/pure," in comparison to so many of the other Lamcin families whose lineages had mixed with neighboring Dayak groups somewhere over the generations.

With this complex, ever-shifting reality in mind, Sercombe and Sellato (2008, pp. 129–130) suggest that perhaps a better way to consider Punan is not as an isolated ethnicity, but rather an ecological and political economic grouping – those forest-dependent peoples both "at the top of the forest economy, the collectors of numerous forest resources, and at the end of the line with regard to access to trade goods and political and economic power." This political economic framing helps situate Punan/Penan broadly and Punan Kelay specifically as well, enabling them to exist as both a social group renowned for their mobility, autonomy, adaptability, individualism, and hunting expertise, as well as agents embroiled in a wider and long-standing history of clientelism (Brosius, 1992; Kaskija, 2017; Needham, 1964; Sellato, 1994).