

Value from Ruin? Governing Speculative Conservation in Ruptured Landscapes

Abstract

This paper examines how state and non-state actors govern through pursuing speculative conservation among resource dependent people who must renegotiate altered livelihoods amidst extractivism in ruptured landscapes. As donor aid declines and changes form, bilaterals, state agencies and civil society now pursue advocacy in overlapping spaces of intensifying extractivism and speculative governance in the ruptured frontiers of Southeast Asia. In these overlapping spaces, bilaterals and non-governmental organizations (NGOs) struggle to work with upland farmers who negotiate the contrasting expectations of the abstract, speculative nature of conservation initiatives and the lucrative nature of extractive labour in the face of dramatic transformations of the social and material basis of agrarian livelihoods and landscapes. Through a case study of the Philippine uplands we demonstrate that as speculative conservation unfolds and manifests within and beyond these landscapes, it endeavors to revalue nature monetarily in ways that help reorganize labour and capital in an effort to overcome the exhaustion of capital wrought by rupture. We propose that speculative conservation during ruptures coproduces value from ruin by renewing and preserving capital flows.

Introduction

After decades of championing indigenous rights, empowerment and sustainability, state and non-state actors must now engage new conjunctures of global governance and deepening commodity production intersecting and conflicting in Southeast Asia's frontiers. In particular, state agencies and NGOs engage with, and broker on behalf of, the rural poor who increasingly negotiate the overlapping worlds of intangible forms of speculative governance via conservation (e.g., payment for ecosystem services and similar instruments) and the more tangible draw of extractivism (labour in oil palm plantations, mining etc.) in landscapes rupturing around them. In the process, the livelihoods and landscapes of poor, resource dependent peoples have become subject to dramatic transformations that arise through the cumulative stresses of deepening capital flows, intensifying markets, and resource accumulation – coalescing in a process of 'rupture' (Tsing, 2015; Moore, 2015, Lund, 2016). Both speculative conservation and extractivism are implicated in such ruptures. Indeed, the massive socio-material changes that drive and emerge from rupture can accelerate governance flows, conservation interventions, and enclosures that reinforce authority and control over 'value-added' resources in the making (Margulis et al., 2013). Here both conservation and industrial practices work together to reinforce accumulation and control over land, labour and capital (Kelly, 2011). As speculative conservation and extractive expansion converge, landscapes are apportioned, revalued and remade into capital's own image, whether for (abstract) natural capital accounting (Sullivan 2013) and or (tangible) oil palm expansion (Moore, 2015). Rupture is thus constitutive of the social and material geographies of capital in these spaces, which are remade as conservation and

extractive worlds collide (Gordillo, 2014). It is in these spaces that marginal uplanders must renegotiate life and livelihood.

This paper explores the impacts and outcomes of speculative conservation and extractivism intersecting with upland livelihoods and landscapes in the context of rupture. We examine how in the last decade state, bilaterals and civil society have shifted governance gears to promote the ostensive virtues and benefits of speculative interventions based on the perceived financial value of ‘future nature’—a growing trend in global conservation generally, where selling perceived benefits and success go hand-in-hand with capitalizing on the anticipated value of nature and any associated financing that is stoked by ‘crisis’ (West, 2009; Igoe et al., 2010; Büscher, 2014; Büscher and Fletcher 2015). In this shift, bilateral, state and NGO practices—our primary focus—have partly shifted from an earlier developmental agenda (Dressler et al., 2010) where ‘community-based’ interventions often drew on existing resources and value chains, to more speculative governance promises based on the economic potential of conserving a ‘parceled nature’ (Fairhead et al., 2012), where the generative (but often uncertain) potential of natural assets (or ‘natural capital’) is constructed, elevated and conveyed through discourses of success. In this context, stocks of natural capital are rendered legible, valuated, and somehow to be tapped to finance and support local livelihoods and afforestation programs (without necessarily knowing when and from where equivalent funds will flow) (Büscher et al., 2014). The potential of such governance to harness nature’s capital as ‘added value’ is thus framed in terms of future-oriented promises and benefits among uplanders whose livelihood needs are rather real and immediate.

We then examine how such governance overlaps with emerging extractive development in the context of ruptured landscapes—in the process changing local social relations of production and exchange so significantly that older ways of life and livelihood are reworked and remade (Gordillo 2014). Social relations and valuation of land and labour, for example, may transform with heightened expectations of profit and material benefits only to be subsequently subsumed with fears of debt and uncertainty. As rupture unfolds, it is rural smallholders who must negotiate the varied risks, uncertainties and opportunities that emerge as conservation and extraction co-constitute rural landscapes. We explore how state and non-state actors try to govern in this context by pursuing speculative, intangible interventions among resource dependent smallholders who are being subsumed by extractivism in significantly altered landscapes.

In so doing, we offer a conceptual and empirical proposition: as speculative governance unfolds institutionally and manifests across scale, its main ideas and practices may create value from ‘ruined nature’ through the financing of ideas and practices that aim to overcome or regenerate the very exhaustion wrought by rupture itself (see Büscher, 2014). In other words, the value speculative conservation seeks to generate represents a spatial-temporal ‘fix’ for capital over-accumulation situated at the conjuncture of conservation and extractivism (Harvey 2006). Coupled with moments of rupture, speculative conservation works to monetize ‘natural capital’ as a ‘discursive commodity’ (Vel, 2015) that is forged through conservation narratives wherein its core concepts and technical practices are framed as inherently successful—a form of glossy boosterism—that promotes and extends its legitimacy and potential to create more financial value. As the notion of natural capital is promoted and sold as a successful concept or policy

intervention, its value mounts as it circulates within and through the social networks of the mainstream conservation bureaucracy, particularly big international NGOs, through which it gains recognition, legitimacy and more financing (see Büscher, 2014 for ‘value in motion’), irrespective of the reality that the ‘natural capital’ pursued remains largely immaterial – particularly for local ‘stakeholders’ whom it is primarily intended to benefit. The discursive valuation of natural capital therefore intensifies when new technologies and ideas circulate in an ostensive bid to save ecosystem services that are immanently threatened due to rupture. Moments of crisis and rupture thus create opportunities for the (re)production of financial value, wherein governance actors and processes circulate ideas and finance across the countryside to reinvest in labour and capital to contend with transformed rural landscapes (e.g., through associations, livelihood support programs, etc). As such, speculative conservation holds the potential to function as frontier capitalism’s latest ‘spatial fix’ in its promise to create additional value by reorganizing, expanding and connecting ideas, capital and labour to new markets and financing opportunities in important landscapes subject to rupture (Harvey, 2001, 23). We explore how indigenous farmers negotiate livelihood realities and expectations at the nexus of these powerful conjunctures in the Philippine uplands.

Our paper contributes to a nascent body of literature in critical agrarian studies that examines how new governance regimes overlap and conflict with extractive industries with varied impacts and outcomes (see Peluso and Lund 2011; Corbera et al., 2017; Hunsberger et al., 2017). As we do, this critical literature points to how governance draws value from ruptured agrarian landscapes as well as from centres of rule well beyond frontier spaces. A recent special issue highlights, for example, how often the state’s withdrawal from providing social and

environmental safeguards, effectively transfers degrees of sovereign control over land, resources and people to the private sector, civil society and donors (Corbera et al., 2017; Uson, 2017). Several cases show that as state agencies and financial institutions facilitate investment opportunities and cede degrees of authority and responsibility in managing land and people, spaces open up for private capital to govern land and labour by way of extracting cheaply and profiting highly—inducing a crisis of capitalist reproduction. In this process, the reordering of indigenous institutions and rights to land facilitates deepening capital flows that push people and landscapes to points of rupture, effectively inducing a crisis of over-accumulation and collapse. In these ruptured spaces, then, speculative conservation emerges in direct response to these crisis tendencies to reset or fix by reforming to capital’s abstract value (Ekers and Prudham, 2017)

Rather than accepting the ‘exhaustion of capitalism’s Cheap Nature strategy’ (Moore, 2015), the actors, ideas, technologies of speculative conservation reform capital to draw out its abstract value from well beyond sites of accumulation and rupture, by stoking the finance attached to ‘big ideas’ such as natural capital accounting (NCA) valuation, various funding flows, and even corporate subsidies. Uson (2017), for example, shows for the central Visayas, Philippines, that the rupture created by typhoon Haiyon in 2013 and associated humanitarian interventions created a complex spatial fix wherein climate change policies and discourses changed the direction of land rights struggles to open the door for private sector control and profit accumulation (see also Work and Thuon, 2017). Indeed, it is no coincidence that big international NGOs and bi/ multilateral governance schemes increasingly intersect with and draw value from over-exploited, ruptured spaces in the pursuit of their own ‘value objectives’ (see Büscher and Davidov, 2014).

The core logic of how speculative conservation sustains itself therefore partly reflects surplus capital that is constantly looking for productive investment (Ekers and Prudham, 2017), but that remains abstract and intractable to local resource users and seldom ever materializes in tangible benefits. We argue, indeed, that the prospect of conserving ‘natural capital’ can only ever be speculative and abstract because: it is defined and valued precisely in this way; and its putative physical basis is subject to extensive rupture compromising the ‘natural capital’ ostensibly being conserved and valued. We show that while speculative conservation, particularly NCA, misaligns with livelihoods and landscapes being remade through extractive rupture, it manifests as a spatial fix by creating value out of ruined spaces themselves.

We focus on the frontier island of Palawan where two major governance interventions – REDD+ and Phil-WAVES – are manifesting in upland and coastal landscapes ruptured by flanking oil palm plantations and mine sites. Palawan is an ideal setting for such a study. Long considered undeveloped, unsettled and bountiful, the island was once considered a safety valve for political and economic challenges in other parts of the Philippines (Eder and Fernandez, 1996). Recently, intensifying battles concerning over-development and conservation involving social movements, NGOs and major extractive corporations have emerged on the island once again (Eder and Evangelista, 2015). Rather than provide an empirical analysis of how farmers rework livelihoods at moments of rupture and speculative conservation, we aim to contrast the objective of conserving natural capital with the harsh realities of (actually doing so in) fractured landscapes increasingly devoid of ‘ecosystem services’ amongst indigenous farmers who contend with precarious livelihoods (see Fletcher et al., 2016).

We focus on two localities where local agrarian landscapes have been transformed by oil palm and mining to the point where notions of conserving natural capital through transforming farmer labour become untenable.

Methods

This paper draws on 40 in-depth interviews and participant observation at two communities (Biluan and Maracuan) located at the southeastern and western coast/interior of Palawan Island, respectively. Between 2012-2016, over four months, the first author carried out key informant interviews with: NGO representatives (6), Barangay officials (6), tribal leaders (3), leaders of palm oil cooperatives (5), swidden farmers/ palm oil laborers (20) and other activists involved in campaigns against extractive industries on Palawan. Most interviews ran between 1-2 hours (some respondents were interviewed more than once). The sample was purposeful and involved referrals by knowledgeable others. Interviews were mostly in the town proper and lowland, coastal sitios (villages, just beyond ancestral lands). Analysis focused on repeat responses within and between the interviews, with common themes drawn together as narrative. All areas and respondent names are pseudonyms.



Map 1: Palawan Island, The Philippines

Declining funds, speculative conservation and ruptured landscapes

In Southeast Asia, the prospects of NGOs and other actors sustaining the environmental governance interventions introduced in earlier decades (1980-90s) recently changed for the worse. As Southeast Asian countries began deregulating their economies, donor funding was slashed and, in some cases, national economies attained ‘lower middle-income status’ (Bello et al., 2004). Many NGOs thus faced declining domestic funds and scrambled for scarcer, competitive global funding (Malhotra, 2000).

In the late 1990s, public-private partnerships emerged whereby funding was provided by the private sector and or new global governance initiatives that promoted market-oriented schemes. In much of Southeast Asia, cash-strapped domestic (and wealthier international) NGOs increasingly made so-called market-based instruments (MBIs) central to their policies (Dressler and Roth, 2011). In general, such market-based conservation aimed to assign monetary values to nature, which, in turn, could ostensibly be harnessed to finance program interventions. In practice, the interventions (e.g., PES and REDD+) usually included local incentive schemes and compensation for lost income-generating opportunities due to livelihood substitutions (Büscher et al., 2014).

Regionally, global governance schemes and bilateral aid have now (though usually only rhetorically) established the role of MBIs as the most efficient and effective way to generate money by realizing the ‘true’ value of nature (Büscher et al., 2014). In tapping this value,

programs and projects ought to be self-financing and offer incentives that compel farmers to adopt more sustainable practices. In embracing market-based programs, NGOs have combined their conventional efforts and institutional practices (e.g., community-organizing etc) to garner rapport and trust among local residents with newer interventions (typically framed as ‘low carbon’ livelihoods) that offer incentives and varied market opportunities offering the promise of multiplier effects (usually associated with sedentary farming and or non-timber forest products). The framing of these interventions commonly features future-oriented promises with locally anticipated ‘positive returns’, but usually with delayed, hollow, or intangible outcomes (e.g., revenue from carbon trading once a new global market materializes) (Novellino and Dressler 2010; Fletcher and Büscher, 2017). Following Sullivan (2013), we call these interventions ‘speculative conservation’.

Speculative conservation in ruptured landscapes

Increasingly, then, bilaterals, state agencies and NGOs in particular have become entangled with transnational governance dynamics driving speculative interventions that stoke local expectations of potential and hope – but hope pinned on abstract, intangible and future-oriented promises that offer little, if anything, for present livelihood realities in ruptured landscapes. The ideas that underscore speculative conservation interventions often already have positive and desirable attributes assigned to them well before implementation, which are invoked locally to inform expectations (Ahmed, 2010). Maintaining perceptions of success and associated expectations thus depends upon how policies and programs are produced within and through influential institutional and discursive networks that invest in, reproduce and circulate the

underlying truth claims (ibid). As Rap (2005) notes for water governance in Mexico, the ‘preoccupation with the performance of success’ ensures that assertions of success becomes self-referential and self-evident amongst those investing (politically and economically) in the reifying policy narrative (see also Mosse 2004; Büscher 2014). In reference to REDD+, Lund et al (2017) note that “policy models are therefore dependent upon narratives and metaphors that distill complex realities” into simplified narratives to legitimate expert ideas, practices and the continued flow of resources (p. 2). In this way, natural capital accounting and similar such schemes are thus less about material natures than discursive strategies aiming to draw finance to maintain projects, even in the face of contradictory empirical data (Roe 1991, 1994; Sullivan, 2013; Büscher, 2014). Consequently, the durability of speculative conservation only wanes amongst policy makers and practitioners when they no longer support the broader narrative within which its concepts and promises sit (cf. Mosse, 2004).

Among local farmers, however, project interventions can gradually set expectations and aspirations that produce ‘big hopes’ for outcomes that, given natural capital’s discursive nature and local conditions of rupture, often simply do not exist. Yet the promise of interventions can stoke expectations and aspirations despite objectives not being fully understood nor ever eventuating. Even when understood, the time lag to achieving outcomes is often well beyond the daily, short-term and future planning of rural households who desire tangible improvements in the here and now. Inculcating a sense of hope amongst local smallholders through speculative interventions thus articulates with local senses of livelihood security and overall progress but typically bypasses the immediacy of farmer realities, needs and expectations. Little, however, is known about how such interventions might unfold in the context of farmers negotiating new

livelihoods realities in the debris of ruptured landscapes. How, for example, can natural capital accounting generate value from ecosystem services and offer farmers incentives to conserve lands after having lost agricultural plots, or having water contaminated from toxic mining operations nearby? We take up these issues through our Palawan case study.

Declining funds, speculative conservation and ruptured landscapes in the Philippines

Scholars have pointed to a long history of social movements struggling for political change through protest that bypasses formal political processes (Clarke, 1998). While NGOs have often worked with state officials and retained weak ties with local communities, Ferdinand Marcos' authoritarian dictatorship (1965-1986) had most NGOs forging grassroots movements that resisted elite control over the political system for personal and familial gain (Clarke, 1998; McCoy, 2002). As Marcos quelled civic organization and political unrest, NGOs and People's Organisations (POs) expanded through covert socio-political networks with other groups, forming diverse coalitions to resist state control and subordination (Constantino-David, 1998). NGO-driven social movements soon culminated in the 'People's Power' revolution that ousted Marcos in 1986.

Under the post-Marcos Aquino administration, new government policies opened up political spaces to accommodate the growth and participation of NGOs within Philippine society (Brillantes 1994; Mercer 2002). The changing sentiment and policies of development agencies towards 'good-governance' and 'people-centered' programs spurred NGO growth while directing their objectives and their networked relationships in the country (Brillantes 1994;

Putzel 1998). With the amended Philippine Constitution of 1987 supporting the involvement of civil society in governance and development, the legitimacy of NGOs as government partners in development grew significantly (Brillantes 1994). As a Constitutional extension, the Local Government Code of 1992 facilitated the decentralisation of political process and introduced provisions for the participation of NGOs and People's Organizations, effectively formalizing civil-society partnerships (Eaton 2003). Thus, Philippine NGOs brought "to the public agenda issues hereto ignored or repressed" (Silliman and Noble 1998a: 292). By 1999, the country hosted more than 60,000 NGOs compared to 27,100 in 1986 (Parks, 2008).

In the late 1990s, however, a decline in NGO funding and esteem in various sectors saw civil society activities shift strategically. Under the deepening oligarchic state of then-president Gloria Macapagal Arroyo, the intensification of neoliberalism and sense of NGO over-funding saw 'Leftist' organizations being 'hollowed out' (Bello et al., 2004). Indeed, after successive governments –from Ramos to Estrada– had already facilitated trade liberalization, Arroyo soon drove what Bello called an 'all-sided free market transformation marked by rapid deregulation, privatization and trade and investment liberation' (p. 12). In turn, being declared a lower middle-income country soon prompted many major donors to leave the Philippines; donor aid thus declined significantly throughout the 1990s (Parks 2008). In the early to mid-1990s, for example, aid commitments from major donor countries including Canada and the USA dropped from US \$2.7 billion in 1990 to US \$1.4 billion in 1996, with only limited funds taking the form of grants (Aldaba et al., 2000). Overseas Development Assistance grants decreased in particular from \$296.5 million to only \$165.9 million over the same period. This in itself was problematic

for domestic NGOs in the Philippines because ‘unofficial estimates of donor dependency ... [suggested] that 50% to 95% of their annual budgets’ (ibid, p. 675) came from such grants.

After 9/11, aid declined rapidly, forcing donors such as the Ford Foundation to leave the country and cut the core funding of more than 200 local NGOs (Parks, 2008). There were few, if any, domestic donors to take the place of such funding organizations and bilateral aid. Despite sustained national growth, domestic NGOs thus failed to find proportional levels of funding in the country (ibid). Collectively, these pressures meant that NGOs soon tapped limited but increasingly prevalent sources of funding for market-based schemes in conservation and development (Novellino and Dressler, 2010)— a broader governance agenda “emerged under the mantra that assigning a monetary value to nature was the most efficient and effective way of saving it” (Roth and Dressler, 2012, p. 363). The idea was that by assigning an imputed dollar value (or price) to ‘scarce’, valuable natural resources (flora, fauna, ecosystem services etc), the ‘real’ monetary value of these resources would be realised through various types of market exchanges (trading, offsetting etc) whereby actors, institutions, and or agencies pay for ecological services/ values being delivered, typically by both resource users and biophysical processes (ibid). The revenues realised from these transactions are asserted to efficiently finance conservation and farmers for lost livelihood opportunities, to support transitions to more sustainable resource uses, and to generate more revenue from existing resource uses to offset future exploitation (Büscher et al., 2014). These ideas and interventions, however, were typically rearticulated and highly speculative in terms of the objectives, incentives and outcomes that they hoped to produce locally.

Over time, grassroots NGOs have found themselves negotiating the rhetoric and practice of market-based governance in a so-called emerging ‘green economy’, drawing on governance programs from bilaterals advocating speculative conservation. In particular, as part of the state’s ‘climate smart’ investments, governance platforms such as the Wealth Accounting and the Valuation of Ecosystem Services’ (or ‘WAVES’) Payment for Ecosystem Services initiative and, relatedly, Reduced Emissions from Deforestation and Forest Degradation (REDD+) emerged to facilitate climate change mitigation and adaptation locally by paying smallholder farmers to conserve ‘natural capital’ (e.g., forest carbon and hydrological functions) amidst expanding mining and biofuel production in rapidly transforming frontiers.

Speculative conservation and rupture – the Palawan cases

The rise of transnational governance programs involved speculative, market-based conservation that aimed to add value to natural resources that local users would tap to overcome the opportunity costs of moving to ‘greener’ livelihoods. In the case of Palawan, REDD+ and the Philippine WAVES program (Phil-Waves) was launched in this spirit as commodity production deepened in the island’s hinterlands.

REDD+

In Palawan, a dynamic NGO consortium soon adopted REDD+ under the green economy banner.¹ New partners included the regional NGO, the Non-timber Forest Products Exchange

¹ Since the 2007 Bali Action plan (UNFCCC COP 2008), international bodies and states have championed REDD+ as an innovative and efficient way for wealthier countries to pay poorer ones to enlist rural farmers to conserve

Program (NTFP-EP), and the international NGOs, Fauna and Flora International and Conservation International, among other domestic groups.

Needing a new funding base and policy instrument to curb the incursion of oil palm and secure lands for indigenous peoples, NGOs decided that adopting REDD+ might help them achieve this. Working with academics, other NGOs and the state, the NGOs drafted and submitted two key documents: the Readiness Preparedness Plan (RRP) to the World Bank's Forest Carbon Partnership Facility and the Philippine National REDD Plus Strategy (PNRPS) in 2009 to UN REDD (both approved in 2010-2011). This outcome led to coordinated preplanning initiatives with the DENR, the Forest Management Bureau (FMB) and a consortium of REDD partners. The NGO consortium emerged as the grassroots initiative, CODE REDD, or Community Development through REDD+. The Consortium saw REDD+ as a "potential funding scheme for forest conservation" and "to strengthen the voice of indigenous groups, forest-based communities and civil society in the Philippines [...] in the REDD plus discourse and in the UNFCCC discussions" (CoDe REDD, 2011, website: <http://ntfp.org/coderedd/about-code-redd/objectives-and-strategies/>).

On a practical level, the CODE REDD consortium aimed to establish a 50,000 ha REDD+ pilot project across select sites in the Victoria-Anepahan mountain range of southern Palawan (PNRPS, 2010)—an area overlapping with both mining and palm oil production (and in one area, an indigenous ancestral domain claim) in southwestern Palawan. As part of the

forest and carbon. Post-Paris (COP 21), it remains a fragmented global initiative to create a financial value for the carbon stored in forests, offering incentives to governments and farmers in developing countries to reduce emissions from forestlands and invest in low-carbon rural development pathways (see www.un-redd.org).

consortium, different NGOs had contrasting functions in executing the Readiness programme. The Palawan-based indigenous Federation, NATRIPAL, was charged with connecting farmers with so-called Forest Governance Bodies, establishing Free Prior Informed Consent (FPIC) and developing low carbon livelihood activities with the NGO, IDEAS (NTFP-EP, 2008). Moreover, it was hoped that indigenous Pala'wan and Tagbanua forest users might be sufficiently trained to be engaged in forest governance so as to draw on non-carbon forest and biodiversity 'co-benefits' and, eventually 'sustainable carbon financing' schemes.

NGOs thus intensified their governance initiatives during the REDD+ Readiness phase. While carbon financing and payments were still in the design stages, livelihood 'co-benefits' for sustainable farming were being rolled out with a focus on non-carbon benefits such as water supply systems, agroforestry enterprises and NTFP value-adding, as well as cash cropping (e.g., rubber, mango, and jack fruit)—all of which were geared toward low carbon futures, and eventually carbon-trading based revenue. In one key implementation area, called Biluan and the Biluan (Tagbanua) ancestral domain claim, key consortium NGOs debriefed community participants about the loss of forest cover in the area, the essence of the carbon inventories, and the level of carbon stocks across key transects. In the process, NGO agents themselves noted that the 'results may be too technical for the common folks to digest easily'. As we show, these speculative governance promises held little meaning: flanking and overlapping the Biluan ancestral domain claim was a long-standing nickel mine and expanding oil palm plantation that had already incorporated most of those lands slated for REDD+ governance.

Just as REDD+ came to fruition, in 2010, during the CBD meeting in Nagoya, Japan, the WAVES' initiative (Wealth Accounting and the Valuation of Ecosystem Services) was launched. Overseen by the World Bank, the WAVES program was rolled out (with IMF and EU support) across several countries, including the Philippines, to introduce programs for natural capital accounting (NCA) in line with 'internationally agreed standards... [and] other ecosystem service accounts' (<https://www.wavespartnership.org/en/about-us>). The work plan for each country was slated to compile and scale up 'accounts' for natural resources such as forests, water and minerals in line with the UN's System of Environmental-Economic Accounting (SEEA). Once uploaded, such national level accounting would be aligned with the global level assessment.

In 2013, consultations for the Philippine component of this program, Phil-WAVES, were being carried out by national government agencies and NGOs in two areas that exemplified the 'status quo' of rapture in the country (Fontanilla, 2014): the Laguna Lake Basin and Southern Palawan. In both areas, the objectives were to 'promote sustainable development through wealth accounting, with natural capital as its major determinant' (p. 1). In practice, this meant establishing ecosystem service accounting for two areas in Southern Palawan and to assist with an analysis of trade-offs associated with different resources and ecosystem use scenarios. 2015 was a particularly busy year, with Technical Working Groups providing NCA workshops and training through database management, satellite analysis and geographic information systems design. To date, several key ecosystem service accounts have been completed, including land and CO², with the changing plantation landscape and 'intangible' indigenous values of the landscapes proving difficult and sensitive to itemize and value.

Building on work of the NGO Conservation International, Phil-WAVES' Palawan-based activities aimed to account for stocks of natural capital and their relative financial value in already ruptured landscapes. In a recent 'Pilot Ecosystem Account for Southern Palawan' report (WAVES draft report, 2015), the assessment of ecosystem value in 'stocks' and relative monetary value was characterized as contending with localized issues such as erosion control of upland forests, water regulation by upland forests, and the contribution of ecosystems to paddy rice production, corn and palm oil production. The new WAVES initiatives sought to show that in the uplands, a tree left standing is worth more than a tree felled, despite upland forests already having being largely cleared for mining and oil palm around farmer homesteads.

As we show, in the context of REDD + and Phil WAVES case areas—Biluan and Maracuan Interior in Southwestern and Southeastern Palawan, respectively—indigenous Tagbanua and Pala'wan perceptions and values regarding land and livelihoods had little to do with conserving natural capital. Instead, their livelihood struggles and aspirations contended with ancestral landscapes, former mosaics infused with cultural meanings, now being worked over by mining and oil palm development. Understanding the significance of the REDD+ and Phil-WAVES breaking on southern Palawan is therefore best achieved by contrasting the promises of natural capital with the livelihood realities of indigenous uplanders residing in the same ruptured landscapes.

Mining and Palm Oil Development on Ruptured Lands

As state, bilateral and NGO actors were in the process of implementing REDD+ and Phil-Waves, mining and oil palm expansion continued unabated, with both adjacent to another in locally ruptured landscapes. As each space overlapped with upland localities, varied consequences unfolded for local livelihoods and aspirations.

With the passing of the Mining Act in 1995, the Philippine state opened the door to major foreign investment, ownership and expansion of mining in the country. Recent tariff liberalization (Executive Order 264) facilitated such investments and expedited the permitting of mining (Bello et al. 2004); in 2004, 350 mining applications were approved on Palawan alone (Rasch, 2013). Most mines overlapped with indigenous lands, destroying swidden plots and forests while drawing farmers out as wage laborers. In some quarters, this necessitated formal consultation concerning the co-benefits and compensation going to indigenous peoples negatively affected by mineral extraction, which tended to happen through the ‘formal’ process of Free Prior Informed Consent (FPIC). With the ratifying of the Indigenous Peoples Rights Act (IPRA) in 1997, indigenous peoples worked with certain NGOs and the Department of Environment and Natural Resources (DENR) to establish (certificates of) ancestral domains as titled holdings (CADTs). In establishing these claims, peoples had to demonstrate indigeneity by way of cultural continuity and connectedness to land (i.e., occupancy and use over time). This meant that those indigenous communities with CADTs—or their state-reified Tribal Council—held formal tenure rights and claims over land and forest resources, necessitating that mining and other extractive industries engage in FPIC and potentially offer local financial compensation. In Palawan, however, the paying out of benefits ultimately meant lubing elite indigenous brokers

and greasing the wheels of extraction. Since the 1990s, more and more mines have been encroaching and, in some cases, even overlapping with CADTs.

Over time, oil palm development grew rapidly on Palawan, often flanking mining areas and overlapping with REDD+ and Phil-WAVES conservation territories. Since then-President Gloria Macapagal Arroyo's signing of the Biofuel Act in 2006, as well as Medium-term Development Plans aiming to develop millions of hectares of high value cash crops, the penultimate President, Aquino Jr. continued to promote the financing of boom crop production in order to replicate production in Malaysia, Indonesia and Thailand (Larson et al. 2014). In 2004, the Provincial Government created the Palawan Palm Oil Industry Development Council (PPOIDC) to promote the expansion of the industry. Thereafter, the Palawan Palm and Vegetable Oil Mills Inc (PPVOMI) and its sister company, Agumil Philippines Inc (AGPI), began palm oil development on the island.² The first palm oil seedlings were planted in 2007 and then harvested in 2011; the initial 3,591 ha planted were to expand beyond 15, 469 ha (Larson et al, 2014)—including the sites of speculative conservation, Biluan and Maracuan, in southern Palawan.

Located in the southern Municipality of Brooke's Point, the PPVOMI controlled the land upon which oil palm milling takes place and had also established a tree nursery. AGPI facilitated access to land for cultivation through lease agreements and/or contact arrangements through out-grower schemes. While some farmers planting palm oil from AGPI were agrarian reform beneficiaries under Certificates of Land Ownership Awards (where the CLOA serves as

² PPVOMI is 60% Singaporean and 40% Filipino-owned and AGPI is 75% Filipino and 25% Malaysian owned (Larson et al, 2014). The Malaysian parent company is Agusan Plantations Inc.

collateral), contracts were also established between farming communities and the AGPI by setting up cooperatives or by farmers themselves who were supported by wealthier, independent landowners. Most cooperatives consisted of migrant settlers who managed an initial labor force of poor and title-less indigenous peoples for forest clearing. Under Production, Technical and Marketing Agreements (PTMAs) with AGPI, cooperatives were also compelled, under contract, to ask members and non-members to include their land for production (and collateral for the financier, the Land Bank of the Philippines (LBP)). As part of the loan agreements, AGPI provided capital and technical expertise to facilitate production (Larson et al. 2014).

In the process of AGPI facilitating palm oil expansion, more and more out-grower schemes ‘took root’ inside and or around ancestral domain claims, including the Biluan CADT and the Maracuan area. In these instances, shadowy agents and brokers created ‘instant’ cooperatives (aka Associations) to facilitate uneven PTMA agreements with tribal leaders without conducting FPIC (ibid.). As a result, indigenous farmers invariably relinquished their usufruct land holdings by signing off on swidden lands for palm oil production under pressure from more powerful brokers (typically their own Chiefs and politicians), effectively becoming landless and forced to look for new and increasingly scarce forest to clear for swidden. At last count, there were 150 ha of palm oil in CADT areas (Larson et al., 2014)— the same areas slated for REDD+ and Phil-WAVES.

Spatial Conjunctures – speculative conservation in ruptured lands

REDD+

Those NGOs spearheading REDD+ were soon faced with the harsh realities of former indigenous allies and farmers distancing themselves from the initiative in favour of the seemingly more lucrative benefits from mining and oil palm plantations unfolding nearby. In the case of REDD+ in Biluan, the indigenous leadership charged with managing the CADT and the specific farmers allied with them adopted a strong pro-mining and pro-oil palm stance. They highlighted the economic potential of the mining and oil palm as a means to support indigenous livelihoods. In introducing the idea of REDD+ to the Biluan community as part of their broader consultations, a staff member of the indigenous NGO, NATRIPAL (the indigenous federation of Palawan), stated:

“We tried to involve them, our target was 12 areas, so we tried to do the consultations with the leaders [...] in the Quezon area... but they felt threatened by REDD+ because they had already started with the mining activities. At first they endorsed the project, but later on they wanted to withdraw the endorsement deal.

However, an interview with the former Chief of Biluan who was initially approached by NATRIPAL, suggested that the initial consultation process might have unfolded rather differently:

“So, they told us about this program and asked us to fill out an application for REDD+ as a CADT representative, CADT holder. We were waiting but they didn't call us again. But the problem emerged when other NGO groups entered the area and never called on us again. They provided for the other people; they organized the other group, without

our knowledge. So when they finalized the orientation, many of our indigenous leaders didn't have enough information about it [REDD+]. That's why our group refused REDD+.

NATRIPAL helped organized Tagbanua groups in every sitio for orientation; but they failed to contact the official indigenous leaders in the community.

In fact, one of the NGO leaders said: "no need to go to the Barangay leaders, no need to have Indigenous leaders, what we're doing is for 'the good', after we have an official, they will be the ones who can manage it and they will be the representatives of the Carbon Trading or REDD+.

And for those Tagbanua who were part of the orientation, well they didn't understand and got misinformation about REDD+ promises."

According to the former Biluan Chief, even amongst those few who did understand what REDD+ was about, there was much more interest in planting oil palm, despite the NGO campaigns against the crop. Indeed, the Chief and his Tribal Council thought that much of the short fallow swidden in their domain claim could be put to better use if planted to oil palm. A few years later, he and his comrades took it upon themselves to establish their own Palm Oil Growers' Association (technically a Cooperative) so as to enter into a contractual lease with Agumil and the LBP. Today, at least 60 hectares of the CADT are filled with palm oil, despite initially being meant to host REDD+.

As elsewhere, however, local farmers' expectations of REDD+ relative to oil palm development and mining exhibited ambiguity, in that neither speculative conservation nor extractive labour were seen to be an adequate means for improving their quality of life (e.g., sending kids to high school, having continuous supplies of rice, paying medical expenses etc). This ambiguity manifested in farmer reticence toward maintaining tree cover to conserve carbon for the REDD+ scheme but also in skepticism concerning the uncertain financial outcomes of extractivism, despite initially being sold on *immediate* promises of oil palm wealth and prosperity by their leaders (who serve as company brokers). In the Biluan case, interviews with farmers clarified this situation, with one saying:

'I came back here for palm oil again ... because they [the leadership and AGUMIL] gives us a salary. They are supposed to pay us every 15 days, but it takes 1.5 months before we get our salary. They still owe us one month worth of salary.' (Biluan, September 2015).

Another farmer noted that people remained in the area to work on the palm oil plantation inside of the CADT, exclaiming:

'We work as daily wage labourers here for the salary.... and we no longer get products from the forest. This is because we work in the palm oil everyday. So life has really changed...' (Biluan, September 2015).

These and many other farmers from the CADT point clearly to the range of ambiguous

outcomes from oil palm (such as delayed payments) and the difficulty in returning to forest-based livelihoods because of landscape rupture. Indeed, many farmers who have been involved in both mining and oil palm development suggest that relying on older livelihood practices is increasingly difficult because of the cumulative impact of mining and oil palm. As one farmer related:

Oil palm has not helped us, because we did not even know that our land was leased to palm oil. We just found that out when it was already bulldozed; and even those coconut trees that we had before in the area were already destroyed without us knowing. From 100 coconut trees, only 9 trees are left now. (Biluan, January 2014)

Another stated:

They held meetings here about the oil palm project that will improve the livelihood of our community. So some had their kasoy (cashew) trees felled to plant oil palm ...the others also cleared coconut farms. This was the negative thing that occurred. Before clearing their land, they could harvest kasoy and copra meat every three months. They are not able to harvest anything now, no more coconuts, everything was replaced by oil palm. Now what? The farmers are given no shares, they get a meager P10,000 (USD \$200.00) per year (Biluan, January 2015).

Finally, the wife of a farmer who had both worked in the mine and the oil palm plantation noted that neither job was sufficient and that returning to fishing activities was problematic

because the mine's laterite had already poisoned the fish and clams in nearby waters:

The mining activities have affected our seas. I have seen many children who frequently visit the doctor because of stomachaches. They got diarrhea from the seafood. When you eat it, you'll get a stomachache. We think it is because of the presence of mines here now. If you picked shellfish at the innermost area, you can get a really bad stomachache. The area is covered with soil [laterite] from the mines.

Last month, my son got sick due to stomachache for a month. It's a good thing that we are covered with Philhealth.

She went on to say:

My husband simply wants to fish; the salary in the mine or the oil palm wasn't enough. But now our kaingin (swidden) yields are declining. The harvests from kaingin are not as good as before, the palay are also smaller than before. And the seafood is no longer safe because of the ship and barge activities at the port of the nickel mine. With the backhoe's activities, toxic laterite soil also spills into the sea. Then the fishermen catch the fish that eat the contaminated soils. So if the fish are contaminated too, and people will eat them, all of the people here will get sick. I've seen the BMC ambulance going to Quezon; it passes by here three times a day (Biluan, February 2015).

... rupture - Biluan Nickel Mine

(Source: Jonah Van Beijnen)

As the upland landscapes of Tagbanua and Pala'wan farmers are ruptured by extractivism, the various carbon-related ecosystem services that the REDD+ programme sought to conserve have already been, or are about to be, destroyed. Only the idea of natural capital and its reputed value remained.

Phil-WAVES

Various state actors at the provincial and national level, including Palawan Council for Sustainable Development, the Department of Environmental and Natural Resources and the Forest Management Bureau, soon worked with NGOs to implement Phil-WAVES and produce a 'Pilot Ecosystem Accounting (system) for Southern Palawan' (WAVES draft report, 2015). As noted, the assessment involved an accounting of the 'stocks' and monetary value of ecosystem services. A core initiative was to take stock of carbon storage, timber production, water for drinking and non-timber forest products in the remaining closed and open forests in the southern reaches of the island, including Maracuan, and to design new land use plans to counter degradation there.

With the first phase of ecosystem accounting completed for carbon sequestered in the Maracuan Watershed, estimates indicated that in 2014 closed and open forest supposedly amounted to 492 and 70, 715 million tons of carbon sequestered in that year, respectively. The estimated financial value for the specified amount of carbon for each forest type in 2014 was 0.23 and 32.67 million pesos, respectively. This amounted to an average of just over 4000 pesos (USD \$80.00) per ha of closed and open forest in the uplands of the Maracuan interior. Yet how would farmers ever realize these benefits? Where would the financing come from, how quickly would it be produced, and to whom would it go? Did the policy rhetoric match local realities?

From Phil-WAVES policy presentations and documents, it becomes clear that the main threats to the reputed monetary value of this ‘natural capital’ were identified as the ‘conversion of forests to agricultural land uses and expansion’ in the uplands (read: swidden) and various other significant factors mentioned in the study’s ‘Ecosystem Condition Account’.³ Terrestrial ecosystem conditions supposedly reflected a high risk of landslide and flooding due to forest clearance from swidden negatively impacting upon the hydrological regime of the watershed (Phil WAVES, 2015, p. 29). In response, key policy applications that emerged from the Pilot study involved ‘support for selection of plantations, support for water management and... to identify opportunities for ecotourism.’ Ostensibly, the incentives produced from these interventions would eventually give smallholders in the uplands sufficient reason to clear less forest and plant more trees (WAVES, 2014 4_Philippines).

³ PPT Slides, Ecosystem Accounts in Southern Palawan, the Phil-WAVES implementation plan for Southern Palawan. February 14, 2014.

Just like in Biluan, however, the Phil-WAVES initiative in Maracuan was unfolding against a backdrop of Pala'wan farmers negotiating the rupture of livelihoods and ancestral landscapes from oil palm and mining. The community of Maracuan, situated in the 'Maracuan Watershed' subject to WAVES, was simultaneously being transformed by oil palm from the private company, Agumil and the Palawan Palm and Vegetable Oil Mills (PPVOMI), and the transnational mining company, Maracuan-Nickel. Both the plantation and mine have enclosed their swidden plots and ancestral lands.

Oil palm, mining and (a declining) speculative potential

The expansion of oil palm plantations reflects a vital conjuncture in Maracuan's contemporary agrarian political economy. In less than a decade, this expansion has created challenging political, economic and biophysical conditions for farmers that have contributed to major difficulties in accessing fallow lands for swidden, declining upland rice yields, and greater degrees of dependency on (and indebtedness from) foodstuffs provided by cooperatives (Montefrio and Dressler, forthcoming). In addition to the mine's impacts, these conditions have significantly constrained Pala'wan livelihoods and ended any possibilities for rural smallholders to even consider engaging Phil-WAVES and other speculative conservation initiatives.

Agumil and the PPVOMI established the oil palm plantation in Maracuan in 2007, with the plantation reaching about 1000 ha in total. The plantation consists of an anchor site (750 ha) and outgrower (250 ha) area held by Agumil and a local Cooperative, respectively. Between 2001-2006, the COOP's Board of Directors (BOD) reorganized for oil palm after being enticed

by the Department of Agrarian Reform (DAR) and the Municipal Agrarian Reform Officer (MARO). After a series of meetings with oil palm representatives convinced the BOD of the potential benefits of oil palm, they enthusiastically went house-to-house to bring other landowners into the project. Starting with only 25 members at the outset, the coop quickly expanded to over 100 members. The first fresh fruit bundles were harvested in 2010.

Pala'wan farmers whose land had already been incorporated and labored on the plantation had the most to lose from increasingly restricted access to land and subsistence, less and irregular income, and greater indebtedness from the foodstuffs loaned out by the oil palm coop (Montefrio and Dressler, forthcoming). In most cases, it was migrants who were leasing land to the oil palm concession who had originally or recently claimed or purchased lands from Pala'wan uplanders for rice and/or copra and then oil palm production. Migrant farmers often purchased land outright, often for very little money, from Pala'wan who commonly sold land to overcome the costs incurred from sickness and or death in the family. With Municipal officers serving as witnesses to these land claims, plots were parceled out and zoned, then incorporated into the plantation.

The entry and expansion of plantations had thus exacerbated problems that began when migrants entered lands formerly occupied by Pala'wan. In the months leading up to the plantation development, a land rush ensued with migrants claiming or purchasing tens of hectares of land specifically to secure greater rent from oil palm development. Migrant landowners originally saw the entry of AGPI as an opportunity to earn from lands that they claimed. Moreover, after the initial sections of the plantation were established, more and more

land had been claimed from Pala'wan ancestral territory for the plantation without consultation. While official government discourse suggests that 'idle' swidden lands are put to better use as oil palm (Montefrio and Dressler, 2016), the reality is that indigenous farmers typically use swidden fallows for NTFP collection and other types of cultivation (Dressler et al., 2016).

With the mine flanking the same lands swallowed up by oil palm, farmers soon spoke of the devastating impacts of both forms of rupture unfolding in their ancestral landscapes. When asked about whether access to and use of upland forest resources, including swidden, had been impacted by oil palm and mining, one farmer noted:

Kaingin (swidden) today is not enough because we harvest much less than before. And the others don't have any loans to give us. So it is not like before because most of our swidden lands are now planted with palm oil; there used to be bamboo (buho) in our fallows that we valued. We earned money from bamboo harvesting and processing; we would just make walling from it (sawali) and would sell it for extra money. We also used to get resin (saheng) from the forest, which we would burn for lighting. But now there is very little forest here. Nothing is left (Maracuan, May 2016)

She stated further:

It's hard today. Before you could plant your land, but today most lands are already planted with palm oil. You cannot plant your crops there anymore. Land is very limited now, many of us just suffer from working for Agumil because we don't have the land for

kaingin farms anymore.

Closer to the coast, another farmer who fished, stated:

We are also affected with the palm oil because when they spray insecticides, our water source also gets affected especially during the rainy season. The insecticides will be carried along to the shore where we fish. We eat these fish! (Maracuan, May 2016).

Those same farmers negatively impacted by the oil palm complained bitterly about the concurrent impact of the nickel company's mine site:

I think we would part ways. And we would look for a place where we can start a new life. Although one could say that the mining might eventually stop operating someday, its damage is already in the soil. For example, before we never used any fertilizers, but years later after the mine came, we had to use one sack of it per two hectares. Now, if you don't have 9-10 sacks of fertilizers, you can't harvest ninety (90) to one hundred (100) sacks of rice. It's the impact of laterite from the mine (Maracuan, May 2016).

... rupture – The Maracuan Nickel Mine

(Source: Jonah Van Beijnen)

As the upland landscapes of Pala'wan farmers are being dismantled by extractivism,

directly or indirectly with flow on impacts, the various ecosystem services that Phil-WAVES seeks to conserve are being undone and, in certain instances, are already being destroyed. The potential to conserve the ecosystems services of these lands by offering Pala'wan farmers various types of incentives is rather grossly disconnected from the reality of their livelihoods currently undergoing profound changes. In many cases, long-standing mixed livelihood pursuits are being dismantled as access to and use of forests is increasingly difficult due to landscapes being subsumed and reordered by expanding plantations and mining activities. Extensive tracts of forest fallows have been clear-cut, pesticides have contaminated soils, and laterite has leached into and contaminated the waterways Pala'wan families depend upon for survival. How exactly, then, can Pala'wan farmers adjust their livelihoods to conserve forests to maintain stocks of carbon and hydrological functions in such ruptured landscapes? What, if any, incentives would compel farmers to maintain forest cover, when they themselves are not complicit in this rupture?

Discussion and Conclusion

As we have shown, the prospect of state and non-state actors governing as they once did—by offering livelihood support that tried to align with local needs and concerns in forest mosaics (Dressler et al 2010)—is now being subsumed by speculative conservation that increasingly touches down in landscapes undergoing dramatic transformations. The art of governing speculatively now invariably intersects with the troubling conjunctures of deepening commodity production and extractivism that ruptures frontier landscapes—on Palawan and throughout frontier Southeast Asia. In these landscapes, marginal uplanders who are subject to such governance are told to modify typically resilient livelihoods to conserve ‘natural capital’ in

disappearing landscapes that once supported long-standing resource uses and social practices (see Dressler et al., 2016).

In changing frontier settings, bilaterals and NGOs struggle to work with upland farmers who must negotiate the contrasting expectations of the intangible nature of speculative conservation and the draw of extractivism as processes of rupture remake landscapes that ensure their survival. In this sense, then, the future-oriented character of conserving ‘natural capital’—where governance techniques aim to conserve nature by assigning abstract, imputed dollar values (whose source is unknown) to an ecosystem ‘service’ (Sullivan, 2013)—can only be interpreted as being dramatically misaligned with the major social and material changes that emerge from rupture.

At the nexus of extractivism and conservation initiatives, the social and material substance of farmer livelihoods are undone and redone as upland landscapes transform over time and space. Governance interventions, extractivism and local livelihood realities are now situated at a critical conjuncture, where pre-existing labour relations and land uses become restructured by the generative and destructive capacities of capital (Harvey, 2006). Older ways of living and labouring have become devalued as the influx of capital finance and investment reworks landscapes so as to make way for newer, more destructive pathways of capital accumulation. It is unsurprising, then, that speculative conservation interventions have little traction amongst smallholders who must negotiate livelihoods with fewer, lesser quality options available to them.

Although the process of rupture is not a linear, manifest destiny, the idea that marginalized resource poor farmers garner agency to find new openings and opportunities to thrive with secure livelihoods in over-exploited landscapes is rather untenable. The legitimacy of speculative conservation in such landscapes must therefore be called into question. Most speculative, market-based schemes unfold with limited certainty and local tractability in terms of how the concepts and ideas translate locally, particularly in terms of how projects try to enroll local users and inculcate eco-rational behaviour (see Dressler, 2014). In many respects, the legitimacy of intangible market-based interventions rests on the extent to which success can be constructed, leveraged and sold to audiences and participants, wherein solutions, ideas and projects are rendered valuable and beneficial in order to achieve and sustain buy-in (Büscher, 2014). The durability of such misaligned policy models stems from the necessity of state and non-state actors to reinvest in and circulate the truth claims and value potential of the underlying beliefs concerning core initiatives (Lewis and Mosse, 2006; Fletcher and Büscher, 2017). The question therefore remains how practitioners of speculative conservation can ever assume local ‘buy-in’ when livelihoods and landscapes are undergoing such profound transformations. Indeed, if rupture reflects the afterlife of deepening commodity relations and fractured landscapes (see Gordillo, 2014), where long-standing livelihoods and views of forests are remade, how can bilaterals, state agencies and NGOs advocate for speculative conservation in the debris of ruptured landscapes? What motivates the proponents of speculative conservation to believe that poor farmers will understand and be interested in conserving ‘natural capital’ in the midst of livelihoods and landscapes being remade – often to the point of being unrecognizable?

Answers to these questions rest in how varied forms of finance continuously penetrate the “everyday life, and above all into the reproduction of extra-human life” (Moore, 2010, p. 390)—

particularly in terms of extractivism and market-based initiatives intersecting with the lives and livelihoods of uplanders. In the case of speculative conservation, we see how the (often rhetorical) transformation of nature into ‘natural capital’ facilitates the parceling of social and ecological processes in practice so as to assess potential future net-worth (Sullivan, 2013, p. 199).

As shown, the rise of speculative conservation in times and spaces of rupture is less about material substance and local realities than the ability of social actors to maneuver networks to leverage the promise of natural capital accounting by asserting the reputed effectiveness of such schemes. Over time, the success of natural capital programs thus becomes self-referential, self-evident and unquestionable, such that narratives of ‘policy success’ themselves come to underpin the value of the very ‘natural capital’ they are supposed to merely reflect. The discursive construction of natural capital value is therefore less dependent on its imagined material reality – ostensive stocks and flows– than on the socio-spatial reorganization of capital and labour at moments of over-accumulation, degradation and crisis in frontier environments. Coupled with moments of rupture, speculative conservation works through socio-political networks that promote technologies, and ideas to help capital to expand and deepen in ways that creates markets for value production in new conservation territories.

In this way, speculative conservation could well serve as frontier capitalism’s newest spatial fix in its potential to overcome, through discursive productions of value, the creative destruction of labour and land during and after extractivist rupture. At this nexus, speculative conservation seeks to revalue the land, labour and capital eroded due to extractivism by

monetizing the use value of each through the finance, technologies and ideas that underpin natural capital accounting. Despite there being few prospects to actually conserve ‘natural capital’ in ruptured landscapes, as our case study demonstrates, speculative conservation’s overall governmental process of enabling reinvestment in labour and capital (in local areas and urban centers from where these programs emanate) helps to produce ideas, values and hence profits out of ruined landscapes. Value is thus generated from rupture itself—though often well beyond the confines of ruptured areas. Rather than being spatially fixed, speculative conservation effectively feeds on rupture unbound, overcoming the spatial thresholds of capital exhaustion by becoming a new “accumulation frontier for finance capital [that involves] the wholesale re-conceptualisation of conserved nature in monetary and tradable terms” (Sullivan, 2013, p 200).

In this sense, the financialisation of nature for conservation offers a spatial fix that functions as a safety value that not only redirects or deflects ‘negative externalities’ from extractivism, but, in so doing, also legitimizes the spatial reorganization and intensification of capital and capture of surplus elsewhere within and beyond the uplands. The rise of speculative conservation in moments of rupture may therefore not necessarily be coincidence; rather, it may be of historical and contemporary consequence in its quest to overcome creative destruction across degraded landscapes. However, those with the most to lose from these dynamics are the marginal indigenous farmers situated at the nexus of such conjunctures. With the loss of control over land, labour and livelihood, these farmers have but few options other than resignation or relocation. Only a select few farmers have resorted to direct resistance.

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