

Weather from incest: The politics of indigenous climate change knowledge on Palawan Island, the Philippines

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Indigenous peoples' understandings of climate change are often interpreted through an instrumental prism that privileges the ecologically adaptive nature of belief and practice. This paper explores the limits of this perspective by considering the environmental narratives of self-blame among households in the uplands of Palawan Island, the Philippines. In the south of the island, indigenous Pala'wan widely suggest that cyclical El Niño Southern Oscillation driven variation in rainfall and related food insecurity is the product of a linear change in climatic patterns occurring over the past several decades. This perceived climate change is explained in reference to the popularity of incestuous relationships and a decline in ritualised executions. Through an ethnographic focus on the politics of climate knowledge, I argue that Pala'wan narratives of self-blame speak as much to ongoing struggles between indigenous people and the Philippine state over control of the forested uplands as it does to the grounded and empirical qualities of indigenous environmental knowledge.

Keywords: Climate change, indigenous knowledge, the Philippines, El Niño, forests

INTRODUCTION

This article explores how changes in the weather are explained by indigenous Pala'wan people residing in the uplands of Palawan Island, located in the southwest of the Philippine archipelago. Drawing on ethnographic fieldwork conducted in *barangay*¹ Inogbong in the municipality of Bataraza (Figure 1), I consider Pala'wan narratives of climate change that surround the annual onset of the monsoonal rains and its impact on agricultural production. In 2011–12, among the indigenous people of upland Inogbong, numbering approximately 500 individuals, a widespread narrative posited cyclical El Niño–Southern Oscillation (ENSO) variation in rainfall as a permanent, linear trend. Many Pala'wan suggest that whereas in the past the onset of the rainy season was fixed, typically arriving in March or April, monsoonal rainfall patterns have become increasingly unpredictable and now diverge from idealised seasonal norms to significantly impact agricultural production. *Panglima*, the customary leaders of matrilineal household clusters, in upland hamlets suggested that this climate change is

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Figure 1 Map of Palawan Island. [Colour figure can be viewed at wileyonlinelibrary.com]

a divine punishment for the increasing occurrences of *sumbang*, or incestuous relationships. The proximate cause of this rise in incestuous behaviour is a lack of moral fortitude, as many Pala'wan blame themselves for a growing lack of self-control.

This account of climate change, and others like it that confront notions of scientific causality and the moral calculus of established anthropogenic climate change narratives, is both ethically and conceptually unsettling. Perhaps most immediately, it presents a challenge to global environmental policy where indigenous peoples are often valued primarily for their detailed and scientifically validated knowledge of local ecosystems and biophysical processes (e.g., Nakashima *et al.* 2012; Naess 2013; see also Ford *et al.* 2016). In situations where indigenous peoples' understandings of the weather do not align with scientific climate data, or they blame themselves for changing climatic conditions, these views are often cast as barriers to the pragmatic challenges of dealing with climate change impacts or simply ignored (e.g. Byg and Salick 2009; Lata and Nunn 2012). They are dumped in what Brosius (2006) terms the 'epistemological

ghetto', reserved for knowledge claims that do not fit neatly within the utilitarian policy aspirations of states and global policy networks, or that defy the simplified expectations of indigenous peoples as expert and harmonious stewards of nature.

For anthropologists concerned with issues of social justice, accounts where indigenous understandings of climate are neither obviously functional nor adaptive also present an interpretive and moral dilemma (Sheridan 2016, 234). As the study of indigenous knowledges has partly arisen as a response to their historical marginalisation, the dismissal of local views that unsettle established narratives of climate change is an ethically untenable proposition. Recent work exploring ontological multiplicity has offered an alternative grammar and impetus to consider these kinds of 'puzzles' by engaging with indigenous conceptions of reality in which, for example, divisions between nature and culture are less salient (Cruikshank 2012). However, fully embracing a radical alterity of indigenous denial or self-blame is also morally fraught, as it absolves industrial polluters and Western consumers of responsibility and often places culpability on communities most vulnerable to the negative repercussions of changing weather patterns (Rudiak-Gould 2014, 336).

I suggest here that one avenue for productively exploring the varied tensions surrounding unsettling climate narratives is an ethnographic focus on the politics of climate knowledge in indigenous societies. Calls for attention to the political dimensions of environmental knowledge are not new within anthropology. The production of Western environmental science has long been recognised as shaped through colonial and neoliberal political-economic systems (e.g. Escobar 1999). Anthropologists also increasingly suggest that it is no longer possible to ignore 'the historical and political underpinnings [of knowledge] . . . nor turn away from the issues of distribution, access and power that shape knowledge systems' among their informants (Nazarea 1999; 5). This perspective has become common within strands of environmental anthropology (Ellen and Harris 2000; Nazarea 2006, 322; Dove *et al.* 2007). However, indigenous peoples' understandings of climate and climate change remain generally the purview of ecologically adaptive framings that emphasise the utility of local knowledge for policy solutions and positions climate knowledge as an apolitical and dehistoricised function of biophysical processes (e.g., Nakashima *et al.* 2012; Berkes 2009; Barnes *et al.* 2013). Though much of this literature continues to demonstrate the complexity of non-Western bodies of knowledge and stress the agency of supposedly vulnerable populations in confronting environmental change, depoliticising and evaluating indigenous knowledge primarily in terms of scientific validity risks ignoring explanations for changing weather that do not serve an instrumental purpose in global climate change policy.

Following others working with communities confronting the conceptual and material realities of climate change, I argue in this article that engaging with climate knowledge as politically negotiated and historically contingent allows for an exploration of the potentially 'counter-hegemonic' aspects of narratives of denial and self-blame (Rudiak-Gould 2014). Although Pala'wan people in Inogbong identify their own moral inadequacy as the proximate cause of climate change in casual conversations, placing these articulations within histories of political change and governmental

intervention suggests that climate change narratives are part of ongoing debate among indigenous households over state intrusion into the uplands and related impacts on indigenous lives. In particular, indigenous leaders emphasise the prohibition of ritualised executions of incestuous couples, beginning in the 1950-60s, as a key reason for moral decline and the associated variability in monsoonal rainfall. However, in addition to a more generalised tension over transformations in customary authority in upland spaces, these arguments are more forcefully made in the forest interior by Pala'wan who bear the burdens of state conservation efforts focused on removing or reshaping swidden agriculture. Swiddening is a rotational form of agriculture that has historically been targeted by resource managers as a particularly destructive and wasteful use of forests, yet it remains central to everyday sociality, subsistence needs and spirituality in upland Inogbong. In light of such entanglements, it is difficult to interpret Pala'wan explanations for climate change and the cosmological assumptions that underlie them divorced from indigenous people's diverse experiences of conflict with the Philippine state.

In making this argument, I first explore the changing extent and nature of state power exerted over indigenous households in the uplands of Bataraza and the political economy of conservation that informs changing livelihood practices on state-owned forestlands. I then provide an overview of Pala'wan narratives of climate and climate change during 2011-12 in relation to scientific understandings of monsoonal variation and ENSO dynamics in Southeast Asia. Finally, I consider the ways in which climate change is understood by indigenous households and framed in reference to contemporary and historical contestation in Inogbong between indigenous people and the Philippine state. I suggest that understandings of environmental change are mediated by concerns over growing disparities in wealth and political status between Pala'wan households that is seen to be partly produced through forestry interventions.

The fieldwork that forms the basis of this paper was conducted during regular visits to Inogbong during 2011-12, in addition to a brief visit in 2010, as part of a broader ethnographic project concerning indigenous Pala'wan experiences with climate change and environmental governance in the *barangay*. A range of research activities were employed as part of this wider investigation, including over 100 interviews with both Pala'wan and lowland Filipino households. The data for this article were drawn primarily from interviews with male customary leaders, who hold the responsibility for managing the impacts of incestuous relationships, and oral histories with older Pala'wan women and men. These interviews were conducted largely in the provincial *lingua franca* of Tagalog, and to a lesser extent in the Pala'wan language with the aid of a research assistant.

POLITICAL HISTORIES AND GOVERNMENTAL INTERVENTION IN SOUTHERN PALAWAN ISLAND, THE PHILIPPINES

The coastal plain of the *barangay* of Inogbong is a landscape dominated by wet rice production and expansive coconut plantations owned by households of migrant

settler origin, originating from the Visayas, Mindanao and the Sulu Archipelago. Although Pala'wan people in Inogbong historically utilised land and resources in these coastal areas, successive waves of frontier settlement from elsewhere in the Philippines have meant they now reside primarily in the forested uplands of the *barangay*. This residence is significant for indigenous people, on Palawan and in the Philippines more generally, as state-owned forestlands are heavily circumscribed zones where resource use, livelihoods and perceived poverty of indigenous peoples is subject to intensive scrutiny by forestry officials and civil society (Dressler 2014). The moral and economic imperatives that surround the preservation and use of forests have legitimated a wide range of punitive and governmental interventions into the lives of indigenous peoples, who are often unwillingly governed more as 'eco-subjects' and face constrained ways of being and doing in forest landscapes (cf West 2006).

Although this migration to the island became heightened in the decades following the Second World War, as early as 1778 Muslim Tausug communities, affiliated with the Sulu Sultanate, had established themselves on the coasts of southern Palawan. They integrated the island's indigenous peoples into regional trade networks through coercive tributary systems, excluding them from much of the coastal zone while extracting forest products and rice from the uplands (Macdonald 2007, 12-15). While much of the island had been subject to sustained, though minor, migration since the turn of the century, it was not until the 1950s that early Christian settlers arrived in southern Palawan and began gradually relegating indigenous Pala'wan to the mountainous interior of the island (Brown 1991).

This period marks the creation of Bataraza as an independent municipality of the national Philippine government (1964) and the rise of a more prominent lowland state presence in the area that is now *barangay* Inogbong. Although previously the area was nominally part of the municipality of Brooke's Point (1951-63), oral histories from indigenous elders suggest that neither the local nor national government had the effective capacity to administer the territory. As the bureaucratic infrastructure of municipal government was established and former Tausug *datus* were incorporated into the new state political order, the social and economic dislocation of Pala'wan households emerged against new forest management practices that saw the uplands increasingly well defined as a space to be actively managed, rather than a source of tribute. When the American colonial administration (and later the Philippine national government) established bureaucratic infrastructure on the island, the uplands of southern Palawan were progressively delineated by the Bureau of Forestry in accordance with the preservation of heavily forested areas for future commercial exploitation. This division meant that the uplands where indigenous people resided had become an object of state territorial imperatives distinct from the private development of coastal plains (cf. Li 1996). The Forest Act of 1904 (No. 1148) was the legal basis of forestry policy until the 1970s and other forestry laws explicitly criminalised indigenous swiddening practices, and oral histories suggest that Pala'wan households in Inogbong were subject to sporadic enforcement of anti-swidden measures following the Second World War.

Residence on state forestlands meant that indigenous groups on Palawan Island would be targeted by new and widespread social forestry efforts popular in the Philippines during the 1980s and continuing into the present (Dressler and Pulhin 2010). Nominally, these approaches were seen to represent a break from harsh and punitive anti-swidden policies of the 1960-1970s, which saw upland farmers harassed, fined or expelled from the public domain. However, new forest management programs on Palawan Island continued to draw on the enduring preconceptions of swidden agriculture and other forms of indigenous forest use as environmentally damaging to inform program design and practical interventions into the lives of indigenous peoples. These interventions, framed as inclusive 'community-based' resource management, have become increasingly intensive by moving beyond the largely punitive and coercive mechanisms aimed at disrupting indigenous use of forest resources. Instead, information-based campaigns involving the long-term presence of project officers and the distribution of material incentives have sought to reshape local political authority, environmental beliefs and livelihood practices in order to achieve conservation objectives (Dressler 2014).

In the *barangay* of Inogbong, the Palawan Tropical Forest Protection Program (PTFPP; 1995-2002) was one such community based forest project aimed at fixing indigenous people's lives and livelihoods 'in place' (Smith and Dressler 2017). In place of swidden agriculture, PTFPP project officers promoted fixed forms of agricultural production alongside alternative forms of income generation and aimed to reshape local environmental subjectivities towards putatively sustainable forms of forest use. To do so, project officers established and maintained a technological and social infrastructure for sustained information dissemination campaigns that framed certain kinds of activities (e.g., swidden) as environmentally, economically and morally detrimental. The information dissemination campaign included environmental film screenings, livelihood lectures, material incentives for tree planting and establishment of a local radio station operated by project staff that encouraged prescribed forms of resource use. A key aspect of this campaign involved enrolling willing *panglima* and other respected Pala'wan individuals who, it was envisioned, could locally broker the project's aspirations and coordinate community efforts in the absence of project officers (PTFPP 2002). These brokers were given 'leadership training' and were taken to visit successful project sites elsewhere on the island. This elevated compliant indigenous leaders through the distribution of legitimate authority and resources in forestry projects (Smith and Dressler 2017).

It is difficult to establish the impact of the project in terms of actually producing diverging pathways of wealth and status within the community², but state conservation efforts and the rhetoric employed by the PTFPP formed part of local political discourse concerning social differentiation amongst indigenous people during my fieldwork in 2011-12. There is now a widespread perception of a growing divide between indigenous households who have benefited both materially and politically from social forestry projects, and those who reside deeper in the forest interior of the *barangay* and rely more heavily on criminalised swidden agriculture. These

households, encompassing approximately one third of Pala'wan individuals in the uplands, were not provided with the same livelihood support and other benefits by the PTFPP because of their residency in areas considered ecologically sensitive (Smith and Dressler 2017). As a result, these more remote households often remain sceptical of conservation efforts (which are seen as anti-swidden) and have seen the benefits of forestry interventions flow primarily to indigenous families who are closer both spatially and socially to lowland migrant political and economic networks. The prosperity of better-connected households, manifest in their accumulation of durable goods and investment in lucrative non-swidden livelihoods, is explained in terms of their past participation in PTFPP projects and the ongoing brokerage of environmental laws on behalf of state agencies. This social differentiation was a source of considerable division between indigenous households during my fieldwork in 2011–12.

THE SOCIAL CONSTRUCTION OF CLIMATE AND PALA'WAN NARRATIVES OF CHANGE

Swidden, also referred to as *kaingin* in Tagalog or *uma* in Pala'wan, is a highly mobile form of agricultural production that derives its productivity from the sequential clearing and burning of sections of forest. In the uplands of *barangay* Inogbong, plots enriched in this fashion are cultivated for several years with a suite of root and cereal crops before being abandoned to regenerate. Though indigenous livelihoods in the area are now highly diverse, as a result of both sustained conservation efforts and new economic opportunities in lowland areas, swidden agriculture remains a vital dimension of household subsistence and, to a large extent, part of Pala'wan social and cultural worlds (Dressler *et al.* in press). Swidden agriculture, and the cultivation of rice in particular, features prominently in mythology and everyday ritual practice and spirituality, and is bound up with the enactment of certain aspects of kinship and social relations. As a highly complex and sensitive form of rain-fed agricultural production, it is also one of the primary means through which climatic changes are evaluated and experienced by indigenous households beyond direct sensory perception. When, what and how to clear, burn and plant requires consideration of a complex array of variables such as heat, wind and precipitation that vary considerably through time and space.

Given the historical and ongoing centrality of swidden to household subsistence and its sensitivity to weather conditions, it is unsurprising the social construction of climate and seasonality are made in reference to key stages in swidden production cycles. The year is divided into a dry season (*bulag*) lasting from December-January to March-April dominated by dry northeasterly trade winds, followed by the arrival of arrival of the wet southwestern monsoon (*barat*) in late April-May. The wet season is further divided into five stages of increasing intensity that mirror statistical rainfall averages for the area, and correspond to celestial phenomena that guide agricultural practices alongside Western calendar markers. Whether climatic patterns are framed

in terms of Western calendar months, indigenous celestial observations, or both, the expectation of seasonal normality remains consistent. That is, the dry season is expected to be extremely dry, and the wet season is assumed to begin in May and steadily increase in intensity before the arrival of the following dry season. It is the threshold between dry and wet periods that is a source of intense anxiety to swiddening households, as deviations from the expected arrival of monsoonal rains in May can have a significant impact on burning practices and, later, soil fertility. For example, if the monsoon arrives later than expected, the nutrient-rich ash deposited through burning may be swept away from the field before planting can be completed. If the heavy monsoonal rains arrive early before burning has begun, fallen tree material will become waterlogged, meaning the field cannot be burned and nutrients will not be sequestered into the soil.

Despite strongly held local expectations that heavy rains should first appear in April or May, local and regional climatic data indicate that the wet season onset varies considerably over time. Year-to-year rainfall data from a nearby weather station for March, a critical period in which many households burn their plots in anticipation of the arrival of rain in the following month, demonstrates that there is considerable variability in the arrival of the rainy season over time. Regionally, departures from expected seasonal rainfall patterns and variation in southwest monsoon onset are linked to cyclical ENSO events (Lyon *et al.* 2006; Moron *et al.* 2009; Akasaka *et al.* 2007). ENSO refers to the connected shifts in sea surface temperature in the eastern Pacific from warm (El Niño) to cold (La Niña) phases – the atmospheric expression in these changes is associated with the pressure differential between Darwin and Tahiti (the Southern Oscillation Index). The El Niño phase is characterised by an intense warming of the eastern Pacific Ocean and a decrease in atmospheric pressure in Tahiti, resulting in a weakening of Pacific trade winds and ultimately reduced rainfall in Southeast Asia and the late arrival of the rainy season. In La Niña phases, the eastern Pacific cools and is associated with increased precipitation throughout Southeast Asia and an early rainy season onset. These shifting climatic phenomena, as measured by the Southern Oscillation Index, are strongly associated with monsoonal onset on Palawan, which historical climate data suggests varies considerably.

During the course of my fieldwork and discussions with informants regarding swiddening practices in 2011-12, a clear and consistent discourse regarding this variability of seasonal rainfall emerged that did not align with scientific climate data. Whereas in the past the onset and duration of the wet and dry seasons was more certain, or acted in line with celestial or calendar markers, many Pala'wan swiddening families felt that it had become increasingly unpredictable and frequently arrived either very early or late in the year. Though this climatic variability can impact various components of the swidden cycle, as noted above what most concerned swiddening households was the ability to burn their plots, which is difficult without a reasonable expectation of when monsoonal rains will arrive. As a result, it was common for Pala'wan to suggest they had not been able to burn their plots successfully in recent

years and that this had significant implications for rice productivity. One customary leader articulated a common perspective that suggested inclement weather is the result of *sumbang*, or cases of incest:

‘I really can’t understand the weather conditions that we have right now. Sometimes there will be rain and sometimes extreme heat - it is really becoming unpredictable. Before, when there is no *sumbang*, it was easy to predict if it will be a sunny day or a rainy day. But now it is very unpredictable. Before, we looked at the stars in the sky as our guide for the weather. For example, before when the month is April, we expect to have rain but now it is June already and there no rain yet . . . I don’t know if it is settled [*the issue of sumbang*] but I guess not, and all the *panglima* must be present when dealing with the *sumbang* case’

Throughout discussions with indigenous informants in the barangay, incest was widely and frequently connected to an increasingly unpredictable climate. Among Pala’wan, incest taboos prohibit sexual relations and marriage between close consanguineal and some affinal kin. The precise boundaries vary, but include close relatives up to and including first cousins, and a strong prohibition on sexual relationships with in-laws across generations (Macdonald 2007, 78).

Why incest leads to a change in weather patterns is answerable in Pala’wan cosmology, which is grounded in a highly interpersonal and relational understanding of environmental processes. For many Pala’wan people in Inogbong, favourable environmental conditions must be continually maintained by ensuring good relations with a range of spiritual beings, deities and ancestors through reciprocal and highly moralised exchanges (see Macdonald 2007; Theriault 2017). Incest is a significant social transgression that upsets the harmonious relationships between humans and powerful spiritual actors and can lead to environmental extremes, though the causal explanations that link incest to changing weather vary from household to household. In some accounts, incest is understood to displease *Empu’*, the apical deity of the Pala’wan pantheon with whom responsibility for broader environmental and cosmological balance is seen to rest. *Empu’*, also referred to as *Diyos* (God), instructs the *Tandayag*, a giant serpent that inhabits the coastal oceans of Palawan, to travel into the mountains bringing extreme heat or rain to the area where incest has been committed. In other explanations, it is the *Tandayag* who monitors Pala’wan sexual behaviour. When incest is committed, the *Tandayag* is able to smell or otherwise sense the sins of the couple involved and travels under the earth to the area and cause extreme heat. *Empu’* may then send large amounts of rain to cool the area, resulting in flooding.

Common to all explanations of *sumbang* is that unless the incestuous couple are punished, negative climatic conditions will befall an entire catchment rather than solely the perpetrators. As a *panglima* in the forest interior explained:

Yes, that is true because the *Tandayag* lives under the soil and he also feels the extreme heat and that is also the cause of *sumbang* punishment . . . If the *Tandayag* gets mad, I tell you that the whole Philippines will be broken into pieces and it will sink in water, and

because the *Tandayag* is the creature God [*Diyos*] placed under the soil and if there are earthquakes it means the *Tandayag* moves. The story is like this, the *Tandayag* talks to God and asks for rain because he also feels the heat under the soil [from *sumbang*], so he ask for rain to cool him down, but the *Tandayag* is under the soil so it will take time for the water to reach him but on the surface there is flood already.

Although alternative explanations of climate change were also circulated by some informants, focusing on other forms of perceived moral decline or social dysfunction, incest was the most clearly articulated reason for unfavourable climatic conditions. This was particularly true among *panglima* of the catchment, who consider themselves responsible for settling cases of incest in the area. For many Pala'wan the stability of the environment is therefore dependent less on abstracted cosmological principles than on interaction between humans or between humans and divine agents grounded in everyday social relations. Climate changes are explained in terms of grounded interpersonal realities, meaning that weather events take on a moral character as good behaviour engenders good weather.

SOCIAL MEMORY AND CHANGES IN THE WEATHER

According to widely circulating oral histories among indigenous elders, the crime of *sumbang* (depending on its severity) was until recently punished through ritual executions. *Panglimas*, both elders and the relatively young, describe these executions as elaborate rituals that reflected the changes in weather that were occurring and the specific depth of the incestuous crime. If, for example, there was an abundance of rain, the offenders were beheaded and the bodies left to dry. The pattern was inverted if there was an excessive drought, and the beheaded corpses were soaked in a river to bloat. After the ritual drying or bloating, the corpses would then be thrown into the ocean. In other accounts, both offenders are simply tied into a large basket with rocks, and cast into the sea. According to older Pala'wan, the municipal government forbade the execution of incestuous couples at some point during the 1950–60s. Since this time, they suggest, incest has been punished in less lethal fashions that fulfilled an equivalent ritual logic without violating state law. Rather than execution, blood is ceremonially drawn from the offenders' thighs or upper arms using a machete, razor blade or piece of rattan and collected in a plate and which is then thrown into the river or ocean, thereby forestalling *Tandayag* from traveling into the uplands.

These discussions with hamlet *panglima* indicate that indigenous leaders had come to ritually regulate incestuous behaviours and climate conditions in ways that could accommodate the state ban on executions. The cutting and fining of offenders was seen to generally mitigate the impacts of *sumbang* by fulfilling a similar ritual logic. That is, the removal of the essence or substance of sin from sites of Pala'wan habitation and the mollification of the *Empu'* through sacrificial offerings. Previously this took place in the discarding of bodies but now occurs through the transmission of

blood. However, as I now consider, enacting these less lethal punishments was problematic.

Between 2011 and 2012, three cases of incest in two villages in the forest interior were the topic of discussion at evening meals and on forest trails, and were a cause of particular anxiety among *panglima*, who saw themselves as responsible for ensuring the correct punishment for incest and maintaining normal climatic conditions. Each of the cases occurred between first cousins, generally the least serious of potential *sumbang* transgressions. The most intense scrutiny fell on an incestuous relationship in which two cousins had started an affair several months earlier and were now living together. To complicate the matter further, the woman was now known to be pregnant. Panglima Muku Tanduk, explained:

‘Because they are first cousin, maybe what happened is they drank alcohol and then did something stupid . . . it means they must be separated because they are cousins. I can’t decide on that matter, I told Meyreg to call both parties to meet to talk so they can agree on what do. If you can come that will be on Friday. They can’t be married because they are cousins but the girl is already seven months pregnant. And the side of the boy will have to pay the fines and they must be separated.’

In line with the prohibition on executions, Muku and his son-in-law Panglima Meyreg worked towards resolving the situation by meeting with the offending parties and their parents to, firstly, fine and separate the couple and, secondly, draw blood from both offenders and offer it to the *Tandayag*. However, efforts to ritually remove their sins from the community were stymied by the parents of the couple, who refused to allow their children to be cut. This resistance became a serious source of tension within the catchment for the following months as other households in the *barangay* exerted pressure on Muku and Meyreg to resolve the issue and prevent further disaster from falling on the community. Ultimately, shortly before my departure in 2012, the case was deemed resolved by the death of the woman in childbirth. Meyreg explained that the crime of incest must be resolved, and without ritually cutting the couple, the woman’s death was inevitable.

These cases of *sumbang* were not seen as isolated events or random acts of deviance, but were situated within narratives of linear moral degeneration and related climatic perturbation. Though fines and blood-letting are seen to be reasonable substitutes for ritual executions, it is argued that without the threat of execution many young people are no longer afraid to commit incest and no longer respect the authority of customary leaders. Incest is therefore now seen to have become increasingly common. Regardless of whether executions ever took place with the same enthusiasm as described in oral history, or if incest really has increased in frequency³, such perceptions form part of a social memory through which many Pala’wan, especially *panglimas*, understand present practices and climatic variation. In reflecting on these histories, incest is seen to be increasing in frequency as customary leaders no longer have the capability to deter incestuous behaviour, providing an explanation for perceived changes in weather.

POLITICAL CONTESTATION AND THE PRODUCTION OF CLIMATE KNOWLEDGE ON PALAWAN ISLAND

In addition to exploring the cosmological basis for self-blame, I also suggest that there is an intensely political quality to climate knowledge that warrants investigation. Closer ethnographic attention to the ways in which discussion of incest is situated in everyday discourse reveals that how indigenous people in Inogbong make sense of changes in climate is closely linked to changes in other domains of life – particularly the intrusion of the Philippine state into indigenous lives and livelihoods in the *barangay* since the turn of the 20th century.

In discussions surrounding changing weather patterns, many Pala'wan reflect on local histories in which the execution of incest offenders was the most effective means of deterring immorality and ensuring proper environmental function. In doing so, they both implicitly and explicitly comment on the Philippine government's restriction of customary authority and livelihood practices. As such, discussions of weather reveal the heterogeneous range of accommodation of (or resistance to) state power at play within the *barangay's* uplands. Many Pala'wan, regardless of their relationship to ongoing conservation efforts and other forms of state intervention in the uplands, draw direct connections between restrictions on customary punishments by the government and climatic decline. A relatively young *panglima*, around 35 years old, from a hamlet in the foothills of the *barangay* articulated this logic clearly:

'... before, according to the story of the old people, those who committed *sumbang* are sentenced with death, but right now we can't impose that punishment because that is against the law of the government ... That's why our tradition was changed, because of the government. Right now the only punishment is to bleed them and then use the plate and throw it into the sea and then the sin will be forgiven ... that's why, for me, it's much better if the old practices will be adopted today concerning that issue, because if we think about it, it's your own flesh and blood and then you have sexual relations. It is very immoral. It is not like planting rice, that you can eat whatever you have planted, we cannot do that in human relations. If God [*Diyos*] is merciful, he might not destroy this earth.'

Although the execution of incest offenders had not taken place within this man's lifetime, the importance of these practices has nevertheless been maintained, even in the absence of their performance. This importance was widespread, and many Pala'wan emphasised the connection between the state prohibition on execution and unfavourable weather throughout the *barangay* as part of attempts to understand extreme climatic variability. Though many *panglima* have benefited from an active participation in forest management projects (as this young *panglima* had), the extent to which customary punishments could and should be practiced remained a point of contention. The perceived impotency of customary authority in the face of lowland state power is understandably a concern for traditional leaders, despite the political and material incentives that arise from compliance with state environmental policies. Among *panglima* who reside in the foothills of the *barangay*, there is more

ambivalence in their discussions of the merit of customary executions. For example, one senior *panglima* living in a village adjacent to migrant paddy fields reflected on the inability to enforce punishments amidst the rumours of incest circulating in 2011–12:

I'm trying to think of the new punishment for the *sumbang* because if you will talk to them [*the offenders*] they might not listen to you. Many people here committed *sumbang* and we try to talk to them but they do not obey . . . And then Bada committed *sumbang*, but he won't agree to the punishment. So, right now, nobody follows the punishment for the *sumbang*.

Nevertheless, he continued:

It's better these days, because before the people known to have committed *sumbang* were being killed without having any trial. But now you cannot just kill any person, even if that person is known to have committed *sumbang*.

Among those whose livelihoods had been more significantly impacted by increasingly restrictive aspects of forestry policy, their statements contain far more explicit criticisms of the Philippine state. Though articulated through the same cosmological principles, discussions of incest and weather in the forest interior often frame a more pointed and active critique of state involvement in upland life through everyday conversations regarding weather. For example, a Pala'wan man, residing in the forest interior and relying heavily on swiddening, complained of an inability to burn his plot for several years, linking climate change explicitly to a state ban on executing offenders of incest:

'Honestly speaking, it is the problem of the Pala'wan. The reason why we can't burn [*our fields*] is because there are some people that are related to each other by blood are having a sexual relationship, like cousins. But, before during the time of our ancestors, if they know that such relationship exists they look for the offenders and then they will kill them. That's why we can't burn the swidden field. In Pinpin, they are cousins, because the mother of the boy and the father of the girl were siblings. Before, people are not like that . . . honestly speaking, there are more than three or four cases of *sumbang* here . . . Before during the time of our ancestors, if they know that there is *sumbang* they will kill the person but now we can't do it because it is against the law and the government will imprison you. But before we would kill the person involved, both male and female, and we would leave the body under the sun.'

Beyond such clear links to livelihood impacts, discussions of climate are often more explicitly politicised by households who reside further in the forest interior. For example, a *panglima* explained climate change by linking livelihood impacts to state policy in the uplands:

The problem is the rain, we started to clear the field and the rain is not that heavy so we decided to continue clearing hoping the weather will also be good but suddenly the rain comes . . . for me it is because of *sumbang* only no other reason, because before only one person committed *sumbang* but now almost every year there is a *sumbang* case . . .

because the government will not allow killing the people are not afraid to commit *sumbang*. We can't do anything about the *sumbang* because the government forbids it . . . Before the government did not intervene with the customary punishment and whoever committed *sumbang* will be killed right away and then the body will be left under the sun . . . that's why if ever we experience extreme heat and rain conditions, it is because of *sumbang*. So I think if it is possible to talk to the government, they should give the power to the customary leaders to impose certain punishment for committing *sumbang* and because I don't have education, I can't do that . . . That is also hard for me because I still have young children. But if not, I would fight for our rights. For example, you want to live a long time? How can you live a long time if there is excessive heat and rain?

Whereas Pala'wan closer to the lowlands are far more accepting, or at least resigned, to transformations of *sumbang* punishments and the decline of customary authority, these statements from Pala'wan in the forest interior reflect a more assertive resistance to the perceived intrusion of the Philippine state on their lives⁴. If considered beyond a strictly environmental interpretation, these discourses of interconnected climatic and cultural change are reflective of finer grain struggles at play within the catchment. Households that have seen few benefits from lowland transformations and forest governance in the form of conservation projects, resist their marginality and the criminalisation of their livelihoods through specific configurations of the origins and solutions to changing climatic conditions in ways that ultimately blame the Philippine state.

DISCUSSION AND CONCLUSION

Climate narratives of self-blame amongst indigenous peoples remains a morally hazardous topic. Although this article points to the limitations of dominant ecologically-adaptive framings of indigenous climate knowledge, I do not wish to suggest that Pala'wan understandings are 'wrong'. Nazarea (2006, 323) alerts anthropologists to the danger of 'conceptually stripping local knowledge of its adaptiveness and reducing it to little more than political currency and intellectual fodder'. Such warnings are heightened when considered in the context of ongoing devaluation of indigenous worldviews, which continue to be viewed inherently flawed epistemologies in a range of settings. That Pala'wan weather knowledge is grounded in so-called ecological realities is not under question; swiddening households possess a clear understanding of the implications of shifting weather regimes for agricultural production, Pala'wan seasonal markers align with scientifically collected rainfall data and farmers manage cropping patterns to minimise the impacts of future drought events. This is climate knowledge built through routine engagement with seasonality in the environment.

Neither should my focus be to the exclusion of the importance of Pala'wan cosmology, which entangles and disrupts nature and culture binaries and engenders a highly personal and moralised relationship with the non-human world. In the broadest sense, that human actions and agency have had a profound impact on the climate,

Pala'wan accounts align closely with dominant narratives of Anthropogenic climate change and emerging discussions of the Anthropocene⁵. Indeed, the anxieties that surround incestuous behaviour and the potentially cataclysmic impact of climate changes in the uplands of Inogbong are strikingly similar to environmental discourses in many Western nations that link climate change to individual actions that result in disaster for all – overconsumption, car ownership and the like. However, for anthropologists, embracing a radical alterity that absolves industrial capitalism from a role in a changing climate remains problematic. The moral calculus of accommodating ontological multiplicity is far less fraught in instances where indigenous peoples and anthropologists may differ in understandings of ecological causality, but not in assigning ultimate blame on, say, mining companies or neoliberal economic theory (cf. De la Cadena 2010).

Pala'wan explanations of cyclical El Niño rainfall variation as linear and the positioning of moral and ritual decline as the cause of climate change are 'unsettling' as they can neither be used to enhance the status of indigenous climate knowledge as scientifically validated, nor be unambiguously deployed as a morality tale of the universal dangers of climate change. In seeking to navigate these tensions and moral quandaries, I have sought to ethnographically place discussions of climate change within histories of political intervention into upland spaces in the form of restrictions of customary punishment, ongoing forestry interventions and local perceptions of social differentiation that are seen to result from state efforts to reshape indigenous livelihood practices. Environmental anthropologists, Science and Technology Studies scholars and others have emphasised the ways in which states, civil society groups and multinational corporations work to shape understandings of climate change to serve their own political-economic agendas (Pepermans and Maesele 2016). Why should we not countenance that similar dynamics could operate within indigenous communities where largely internal debates over the blame and solution to climate change have equally tangible political-economic weight?

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NOTES

- 1 The *barangay* is the lowest level of political administration in the Philippines. Pseudonyms for informants are used throughout the paper.
- 2 Oral histories suggest that trajectories had begun long before the arrival of the PTFPP, and have likely always been a source of tension in Pala'wan social and political life.

- 3 There is no data to evaluate changes in the frequency of incestuous relationships over time, either in Inogbong or amongst Pala'wan groups. Given the prevalence of incestuous themes in the folklore of Pala'wan and related indigenous groups on the island, I suggest that intense anxiety surrounding incest has always been a feature of social and political life and is now being leveraged in new areas of contestation.
- 4 Related causes of climatic decline include the decline of rituals aimed at maintaining harmonious relationships with various deities. This too was sometimes blamed on conservation efforts for constricting upland rice productions, as almost all Pala'wan rituals require rice in one form or another, as well as the declining political will of some Pala'wan leaders to facilitate climate-related ceremonies.
- 5 Even in a narrower climatological sense, the ENSO dynamics observed by Pala'wan people are not isolated from Anthropogenic climate change which is predicted to intensify oscillating extremes of drought and deluge.

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