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Does decarbonization undermine carbon-resource reliant peace? Exploring the resilience of Aceh and Papua’s contrasting predatory peace settlements

Author names and affiliations

Claire Q. Smith, University of York, U.K. <https://orcid.org/0000-0002-7479-4312>
Susannah G. Williams, University of York, U.K. <https://orcid.org/0000-0002-2799-3861>

Corresponding author

Claire Q. Smith, Department of Politics and International Relations, University of York YO10 5DD, UK. Email: claire.smith@york.ac.uk

Abstract

In some of the most contested and violence-affected areas of the world, carbon resource rents underpin fragile peace arrangements. But as global pressures to decarbonize intensify, the effects on these peace deals of removing carbon resource rents remain poorly understood. This article makes a new contribution to the emerging scholarship on the relationship between peacebuilding and decarbonization via a comparative case study from Indonesia. We explore the post-war political settlements in the Aceh and Papua regions, where natural resource governance reforms have underpinned contrasting approaches to ‘peace’. In both sites, political stability has relied on local elite access to carbon resource rents via predatory peace arrangements. In the Aceh region, the peace settlement was formally negotiated and included important reforms. It has remained resilient through rapid decarbonization, with alternative revenue sources accessible to the local elite. In the Papua region, conflict was managed via an informal securitized settlement, which has stayed relatively stable, although it remains untested by decarbonization. Overall, we find that predatory peace settlements reliant on carbon revenue resource sharing among local elites can be resilient to decarbonization with relevant mitigation and political reform measures in place. However, with-out these measures, stability appears conditional on repressive security measures.

Keywords

carbon revenue governance, traumatic decarbonization, peace building, predatory peace, Aceh, Papua

1. Introduction

It is well established that climate change disproportionately affects postcolonial countries, even though they contributed to it the least (Sealey-Huggins, 2017, 2018; IPCC, 2007). At the same time, the process of decreasing reliance on and access to carbon resources has also caused these states serious problems for revenue and employment generation (IPCC, 2018: 21). While decarbonization poses future benefits for the Global South, it can also have devastating and highly localized repercussions. Furthermore, in some of the most contested and violence-affected regions in these areas, carbon resource rents underpin fragile peace arrangements. Accounting for the security dimensions of climate change adaptation and mitigation has already been shown as critical to achieving sustainable peacebuilding (Edwards, 2018; Ide et

al., 2021; and Pieterneel de Bruin, 2022). But the effects of removing carbon resource rents from peace deals that rely on them remain understudied. This issue requires urgent exploration, given the risks of violent conflict escalation involved.

Emergent research has demonstrated that removing access to carbon resources, whether to meet other economic or climate policy goals, or via unplanned processes, can trigger rapidly destabilizing political effects, or 'traumatic decarbonization' (Gopalakrishnan and Miller 2024; Sarkar and de Waal 2024b). This article makes a new empirical contribution to the emerging debate on the relationship between fragile states, decarbonization and peace processes by exploring two new case studies. Both the Aceh and Papua regions of Indonesia faced significant secessionist conflicts in the late twentieth and early twenty-first centuries in which the contested control of carbon resource rents played a major role in driving violence.¹ The liquid natural gas (LNG) sites in the Aceh and Papua regions were some of the most lucrative and complex natural gas operations in the world during this period (BP, 2019; ExxonMobil, 2018). In both regions, contrasting post-war political settlements embedded in reforms to carbon resource revenue governance were achieved over the last twenty years, with greater access to carbon resource revenues and associated new benefits for local elites at the core of these settlements. Indeed, these agreements helped to forge a new era of political stability for Indonesia in two of its most contested territories (Bauer and Gankhuyag, 2021).

Our core question here is what happened (or may happen) to these carbon resource revenue dependent peace settlements when faced with rapid decarbonization. To address this, we focus on two further questions. One, we consider how these two sub-national peace settlements were intricately connected to carbon revenue governance - the distribution and management of rents from carbon resources - and how these have differed and why. Two, we explore how (if at all) declines in carbon revenues have threatened those peace settlements, and in what ways. We also consider some of the mitigation strategies for carbon reliance in these peace settlements, and the sustainability risks where alternatives have not (yet) been identified. In terms of methodology, our analysis draws on the academic and grey literature from the establishment of regional peace settlements in the early 2000s through to mid 2025.² The scope of our research was designed to be exploratory and based in secondary data analysis. We explore the limitations of this approach, gaps in the existing knowledge, and possible future research directions in the concluding section.

The emerging literature has so far demonstrated the fragility of carbon-reliant peace deals to carbon pricing shocks and/or rapid decarbonization (Gopalakrishnan and Miller 2024; Pospisil 2024; Sarkar and de Waal 2024b). In contrast, in the Aceh case we consider here, a peace settlement underpinned by the reorganization and redistribution of carbon revenues proved resilient to rapid decarbonization. We find that this resilience was due to several crucial factors, each of which were missing in our other case study of the Papua region. In the Papua region,

¹ The naming of the Papua region has been deeply contentious for decades, for good reason. We follow the AHRC (2013) convention and use the term "the Papua region" to refer to the western half of the island of New Guinea, governed by Indonesia since 1969. The territory was formerly known as Dutch New Guinea during colonial rule, Irian Jaya under the Suharto regime, and Papua (briefly) after the end of authoritarian rule. It is also known as West Papua by those who advocate for the region's right to self-determination. The situation has been further complicated since 2003 as the region was split into two administrative provinces, West Papua and Papua, and then, in 2023, into six provinces, although the legality of these arrangements remains disputed. On the political complications of naming the region of Papua, see International Crisis Group, 2003, and Macleod, 2015.

² One of the authors has extensive fieldwork experience in conflict regions of Indonesia and drew on this in the analysis of the secondary materials.

decarbonization had not yet taken place in 2025 - and remained unlikely to do so in the near future, with LNG resources predicted to remain extensive through to the mid 2060s - although there had been some movement towards a government-led “Low Carbon Development Plan” for the region.³ For the Papua case, therefore, we consider how and why the informal settlement faced *potential* risks of destabilization via decarbonization.

In the Aceh region, several crucial factors enabled the peace settlement to be resilient to decarbonization. We found that other resource revenues took the place of carbon revenues within the carefully negotiated and legally codified framework for peace, both through the initial peace accord and the formal law adopted by parliament to approve it. The peace settlement was robust and resilient to decarbonization for the large part due to the mutually agreed rules that it was based on, demonstrating similar durability to the transactional political rules observed in other fragile contexts (Spatz, Sarkar and de Waal, 2023: 13). We propose that international policy can therefore learn lessons around decarbonization from the Aceh peace settlement, as it shows that a *formal* peace deal underpinned by a legal and political framework for natural resource revenue sharing – even when predatory - can enable political stability when the alternative sources of revenue were also made accessible to the local elite.

Further elements of the Aceh deal that added to this resilience included the overall political commitment from national and local leaders, the political reforms encoded in the settlement, and the international role in supporting the negotiations and resourcing the region during the post-war period. In contrast, the preliminary evidence from the Papua region suggests that an *informal* predatory peace settlement, without sufficient reforms and mitigations in place, and without international support, may in the future become susceptible to the destabilizing effects of rapid decarbonization. However, as the informal peace established in the region had not yet been tested by decarbonization, as of 2025, it remains too early for firm conclusions. As we outline further below, ‘peace’ in this context *is* natural resource governance reform, and not something more substantive and inclusive.

The next section outlines the core concepts of peace as carbon compact, predatory peace and the role of corruption as a stabilization tool in peacebuilding, which we use to explore the case studies. We then provide a background on central government approaches towards carbon resource governance and conflict management in both regions up to the peace settlements. The following sections then consider each case in detail, outlining how two different kinds of peace settlement were eventually reached, their links to carbon revenue redistribution and governance, and how each settlement has responded to decarbonization, or the threat of it. The final section outlines key findings and directions for future research.

2. ‘Peace as carbon compact’: Predatory peace and political stabilization in carbon-reliant fragile states

Global decarbonization is a two-fold process, driven both by a planned agenda to reduce carbon-based economic reliance and unplanned processes involving new oil discoveries, geostrategic reconfigurations, low oil prices and/or the reduction of supply (Pospisil, 2024;

³ In 2019, an MoU for a “Low Carbon Development Plan” for the Papua region (the RPRKD) was signed by the provincial governments of Papua and West Papua provinces and the National Development Planning Agency, outlining policy plans for reducing carbon reliance and greenhouse gas emissions, including by developing renewable energy and opening carbon trading (Alfiyah and Adestika 2023). However, by 2025, it remained unclear how much progress had been made towards these policy goals, especially with LNG extraction extension plans continuing in 2025 (Reanda Bernadi 2025; GlobalData 2023).

Howson et al., 2022). In many fragile states, hydrocarbon revenues are central to national economies and politics (Spatz, Sarkar and de Waal, 2023: 2-3). Global decarbonization processes therefore stand to have a deep impact on states that are both fragile and fossil fuel dependent (Gopalakrishnan and Miller, 2024; Sarkar and de Waal, 2024b). The process may also have a potentially profound impact in regions of fragility dependent on hydrocarbon revenues in otherwise relatively stable national political-economic systems. Peace settlements that are at least partially embedded in the reorganized governance of carbon revenues are at particular risk to rapid decarbonization - however, the impact of this on the sustainability of such peace processes has so far been poorly understood (Gopalakrishnan and Miller, 2024).

As of 2025, Indonesia as a whole was not considered a fragile state, with nationwide formal democratic institutions and practices in place for over two decades, and the majority of regional armed conflicts under control. Nonetheless, it still contained regions of fragility in some peripheral violence-affected regions, such as those considered here. Fragile states (or, in our cases, regions) are those ‘that have significant vulnerabilities across dimensions of violence, justice, institutions, economic foundations and resilience’ (OECD, 2020). In fragile fossil fuel dependent states (FFFPs), deep-rooted contests within and across branches of government, institutionalized patronage-based governance systems, and an enduring influence for military and militant organizations in political affairs, are prevalent features of the political economy (Gopalakrishnan and Miller, 2024; Sarkar and de Waal, 2024b). In such states, political arrangements underpinning periods of stability are often derived from the control and distribution of carbon rents, which provide elites with the discretionary funds to distribute patronage and retain power (Spatz, Sarkar and de Waal, 2023: 3; Gopalakrishnan and Miller, 2024: 355). The rapid or unplanned loss of carbon revenues can destabilize the delicate political agreements dependent on those revenues, with elites then seeking alternative rent sources, often via coercion and violence (Sarkar and de Waal 2024b: 325).

However, the role of corruption in peacebuilding, while complex and destabilizing, can also have positive effects - at least in the short term - via the “purchase of peace” and its associated redistributive effects (Cheng and Zaum, 2011; Biddulph, 2017). The provision of opportunities for corruption and patronage in peacebuilding have often been explicitly negotiated as part of power-sharing to help “buy out” potential spoilers (Cheng and Zaum 2011: 8). Le Billion (2008: 356) notes that corruption is frequently tolerated by peacebuilders in the interests of short-term political stability and maintaining security, despite the known often destabilizing longer-term effects. Although corruption can lead to and sustain violent conflict, it can *also* sustain stability and consensus within a context of relative disorder (Le Billion, 2003: 424).

Our analysis of the Aceh and Papua regions shows how, in both regions, local governance reform, with particular relation to carbon resource governance, and designed to be in the interests of regional elites, formed the backbone to their different ‘peace’ settlements. We highlight the term ‘peace’, as it is contested whether the Papuan settlement reached between 2001 and 2025 was a *peace* settlement, or something else, an issue we discuss further below. In contrast, the Aceh deal has been viewed as a classic example of an internationally mediated peace settlement (Harland, 2025; Wandt and Patria, 2015), even while scholars note that despite liberal elements at the start, in practice the peace settlement has been predatory, or illiberal (Aspinall, 2007b; Sindre and Ross, 2021). The issues of predation and stability are therefore central to the definition of peace we find relevant for these two regions.

The peace settlements that were reached in the Aceh and Papua regions, while different in terms of their formality and process (important differences with implications for long-term

stability, which we discuss), were both aimed at reducing armed conflict by improving regional political and economic stability. They were also both premised in mechanisms that rewarded local and regional elites via the reorganization of carbon revenue benefits in order to achieve this stability – via what Sarkar and De Waal (2024a) describe as “peace as carbon compact”. We therefore consider the ‘peace’ settlements in these contexts as agreements (whether formal or informal) reached to achieve a major reduction of armed violence and an increase in political and economic stability in the interests of elites – rather than peace in the more substantive, inclusive, community-based or justice-related sense of peace as conflict resolution.⁴ Others have referred to this type of peace as a “formal political unsettlement” (Bell and Pospisil 2017; Sarkar 2023), a “predatory peace” (Aspinall 2007, 2018), or an “illiberal peace” (Smith 2014, 2020). With this definition in mind, we turn to a detailed analysis of pre and post settlement dynamics in both cases.

3. National background on carbon resources and political history in the Aceh and Papua regions

The political history of the two regions and the national background, both pertaining to natural resource governance, are important to briefly unpack before getting into the details of the settlements reached. This background frames the ways in which the two different kinds of ‘peace’ were approached by the central government, and how the contrasting peace settlements were eventually formed and underpinned by carbon revenue governance reorganization.

Indonesia experienced its first carbon resource rent boom from the 1970s to the mid-1980s (CR, 2008). Aceh was at the heart of this boom, with the discovery of the Arun natural gas field in northern Aceh in 1971 by Mobil Oil, later ExxonMobil (ExxonMobil, 2019; Minority Rights, 2003). During its peak, Aceh’s Arun site was one of the most globally profitable LNG operations in the twentieth century (von der Mehden and Lewis, 2004). During this booming natural resource extraction period, Papua’s main resources were gold and copper, as gas had not yet been discovered (Dettman and Pepinsky, 2016: 8). In both regions, the majority of natural resource revenues flowed out of the regions and into the central authoritarian government (Hill and Pasaribu, 2022: 4). Secessionist conflicts in both regions focused on the management of natural resource revenues, among other core grievances, escalating during the New Order military government (1966-1998), which took a highly repressive militarised response. Since this period, Indonesia has remained one of the world’s biggest producers of LNG, although the main site of extraction shifted from Aceh to Papua after 2006 (ITA, 2021).

The transition from military regime to democratic state after 1998 opened up new prospects for peace in both the Papua and Aceh regions. Post-democratization, the new administration attempted to introduce decentralization and special autonomy laws, reallocating natural resource revenues and partially reforming governance systems in the two regions to reduce secessionist demands without renegotiating territorial status (Sulistiyanto and Erb, 2013; Bertrand, 2021; 2019: 2). However, the way the Aceh and Papua regions were treated by the central government through the democratization period was distinctly different. This difference was based in deeply rooted patterns of interaction between Jakarta and these regions throughout

⁴ Importantly, there were initially more elements of an inclusive and substantive peace in the Aceh negotiations, which were then marginalized in the formal codification process, producing the 2006 law on governing Aceh. We discuss this in more detail in the case study section.

the late colonial, early independence and New Order regimes, which forged different and deeply rooted perceptions towards both regions.

Since the colonial era, both regions had been exploited for their rich natural resources. One key difference however was that the Acehnese were seen as more nationalistic to the overall Indonesian nationalist cause, due to long-standing political legacies. Colonial and early independence experiences created an enduring perception that Papuans were culturally different, disloyal and opposed to wider Indonesian nationalism (Viartasiwi, 2018; Drooglever, Schouten and Lohanda, 1999; Oostindie and Steijlen, 2021). Conversely, the Acehnese were viewed as loyal and nationalistic following the Acehnese-Dutch war (1873-1914) and the national Indonesian war of independence (1945-49) (Rahman and Abdullah, 2018: 350; Sulistiyanto, 2001; Saleh, 2000; Kreike, 2012: 299).

Despite both regions engaging in armed conflict with Suharto's New Order regime in the late 20th century, these contrasting perceptions of the regions persisted amongst the Jakarta political and military elite right through to the democratization era, and underpinned the national government's different approaches to each eventual settlement. Similar demands for greater local autonomy and control over governance of their resources were violently challenged by Jakarta in the early days of democratization, but, in Aceh, these moves were not seen as anti-Indonesian. In contrast, the Papuan claims were consistently viewed as threatening to national unity - and this partly explains why a formal and more inclusive peace deal was eventually possible for Aceh, but not for the Papua region.

During the early days of democratization, the Indonesian government introduced two new national decentralization laws in 1999 to shift political and economic power further towards the subnational level (Buehler, 2010: 267), with important implications for revenue sharing (Aspinall and Fealy, 2003: 9; Nasution, 2016). The hope was that by transferring some power to the regions, this would meet demands for more localized authority while curbing secessionist aspirations (Buehler, 2010; Hadiz, 2003; Turner et al., 2003). The Aceh and Papua regions were also due to be subject to new special autonomy laws, containing regionally specific resource revenue sharing arrangements for LNG incomes, directly intended to facilitate conflict management, along with a range of other special revenue and funding features (Bertrand, 2021, 2019; Macleod, 2015; Bauer and Gankhuyag, 2021). Revenue redistribution from natural resources was seen as a critical element in these government conflict management strategies (Lele, 2023: 979; Aspinall, 2018), although it turned out not to be effective immediately.

Under the new special autonomy laws, both the Aceh and Papua regions were scheduled to receive 70 per cent of revenues of oil and gas produced in their regions, with 30 per cent for the central government (Hadna, 2016: 17), in a direct reversal of the arrangements for other regions across Indonesia.⁵ This revenue sharing plan was intended for nine years in the Aceh region, and 25 years in the Papua region (Strachan, 2014: 4), after which they were due to receive 50 per cent of natural resource revenues each (Agustina et al., 2012a, 2012b). However, both the Acehnese and Papuan leaders at first rejected the new special autonomy laws, given the ongoing military conflict, and deep lack of trust and inclusion in the details of its contents, which fostered further resentments and conflict escalation in both regions (Bertrand, 2021).⁶ It was not until the mid 2000s that the national government's approach to managing resource

⁵ The reverse was true for other regions producing oil and gas, where Revenue Sharing Funds were distributed 70 per cent to the center and 30 per cent to the region (Hadna, 2016: 17).

⁶ This was heightened after the East Timor referendum in 1999 and the central government's admittance of its security agenda towards separatist movements (Ruhyanto, 2016).

sharing shifted, with a more focused commitment to settling these conflicts - although in different ways. The following sections consider the two eventual peace settlements and their relation to carbon revenue governance in more detail.

4. *The creation of a resilient predatory peace settlement for Aceh*

The Aceh peace deal demonstrated remarkable resilience - or “stickiness” - as a political settlement (Spatz, Sarkar and de Waal, 2023: 13) for two decades after the conflict ended, even during rapid decarbonization. We find that the critical element for this political stability came from the alternative sources of revenue accessible to the new Acehnese elite through the Law on the Governing of Aceh (LoGA) framework. This formally approved framework was also crucial, as it was backed by all major parties to the conflict, underpinned by parliamentary approval, and supported by international funding and monitoring. Other important elements of the peace deal - including political reforms - were also crucial, but did not operate alone. As Melvin et al. (2023: 2) observe, “the assimilation of GAM leaders into the government’s patronage...bought Jakarta peace in the province.” This process resulted in what has variously been described as a “predatory” (Aspinall 2007b; Melvin et al., 2023) or “illiberal” (Sindre and Ross 2021) peace, providing the new elite with promised peace benefits and ensuring political stability over the longer term.

4.1 Steps to a post-war agreement for Aceh

During the first stage of democratization, between 1998 and 2004, the Aceh conflict initially escalated. Negotiation attempts between Jakarta and GAM and the first round of special autonomy proposals failed due to a lack of credibility and commitment from the central government, as well as growing military operations from both sides (Bertrand, 2021). Indeed, this period was one of the conflict’s most severe phases (Aspinall 2007b). Following the election of former military chief SBY in 2004, who came into power with a goal to resolve the Aceh conflict alongside his VP Jusuf Kalla (Lee 2020), and with the catalyst of the late 2004 Aceh tsunami, which triggered a new international mediation effort and global humanitarian attention providing new resources to the region (Le Billon and Waizenegger 2007; Sindre 2018; Sindre and Ross 2021), the negotiations restarted afresh.

The formal peace process of 2005 enabled a restructured resource sharing arrangement that was acceptable both to the GAM leadership - as it stood to benefit them (Aspinall, 2009a, 2018; Bertrand, 2021; Cheng et al., 2018: 32) - and its wider regional supporters (Sindre and Ross 2021; Schulze, 2007).⁷ Even while Aceh’s LNG fields were already declining in value by this point, with carbon rents set to expire in 2026 (World Bank, 2009), other resources were substituted to replace these. GAM’s shift away from secessionist demands to a redivision of revenues within increased regional autonomy, among other demands, was significant, as the conflict finally became ‘divisible’, or resolvable (Cheng et al., 2018: 36-37). The reorganization of resource revenues met some of GAM’s main demands, while avoiding their claim for independence (Cheng et al., 2018: 36-37; Bertrand, 2021). Other elements were also crucial to the deal’s success.⁸ But the deal’s backbone was the break from past patterns of

⁷ The international dimension of the Aceh peace process - while not the focus of this paper - was a critical factor in enabling the formal peace talks. See Aspinall (2007b) and Sindre and Ross (2021) for details.

⁸ On the other critical elements, including increased political and security autonomy in Aceh, and the particular role of the new government, see Ansori (2012), Bertrand (2021), Lee (2020), Lele (2023), and Sindre (2012).

central government resource revenue extraction and enabling access to these funds for the GAM leadership – two of the major generators of the Aceh conflict since the early 1970s.

The new LoGA legislation ensured there were broad autonomy powers and highly favorable fiscal concessions to the new regional government (Bertrand, 2019: 2; Melvin et al., 2023: 2-3). It also provided the Aceh region with additional government funds, constituting two per cent of a national “General Purpose Fund” for 15 years, then reduced to one per cent for the next five years (Aspinall, 2018). Over these 20 years, an estimated US\$7.9 billion was provided to Aceh overall, exceeding the total losses caused by conflict in the region (CMI, 2021; World Bank, 2009). The LoGA enabled the creation of a new ‘peacetime order’ (Lee 2020), relying on a form of new elite capture that facilitated a stable settlement based on the division of the spoils of peace (Aspinall, 2018; Bertrand, 2021; Kent and Affiat, 2023: 88).

The original Helsinki MoU of 2005 promised a more inclusive and justice focused peace, including, for example, the promise of a future Truth and Reconciliation Commission for Aceh to deal with the human rights abuses and war crimes of the civil war (Melvin et al., 2023). However, the initial emphasis on human rights and reconciliation was minimized during the final negotiations. This minimization of justice elements was also encouraged by the international mediators and appointed monitors in the interests of securing a deal that would pass through the Indonesian parliament and hold respective elites to it (Aspinall, 2007b; Sindre, 2018; Melvin et al., 2023). Indeed, as Aspinall (2007b) argues, there was deliberate vagueness over human rights details in the negotiations, with much closer attention to revenue and political arrangements, in order that the deal would pass. Despite the initial inclusion of more justice focused elements, strongly advocated by civil society and moderate elements in GAM, these were eventually sidelined by more conservative and dominant voices looking to guarantee political influence for the future (Sindre and Ross, 2021). Furthermore, seeking long term relationships with the Indonesian government, and reluctant to offend the authorities, international actors and donors stepped back from advocating for further justice-focused reforms (Melvin et al., 2023; Sindre and Ross, 2021).

Subsequent protests by local civil society groups, and their long-term advocacy for the Aceh TRC - eventually produced in 2018 - was a direct response to the predatory, economic- aligned and non-justice focused nature of how the peace deal was implemented (Melvin et al., 2023). The key issue for the Acehnese political elite in the longer run - although it may have been in their earlier interests, as Sindre (2018) shows - was not that the post-war order became more inclusive overall and dealt with human rights issues of the past. Instead, it was that the post-war order was controlled by the Acehnese political elite, and that the government funds vital to the local economy were governed by them, not Jakarta.⁹ As Barron and Burke (2008) argue, it was *locally* determined factors, and not international organizations, that ultimately ensured the trajectory and sustainability of the peace process.

4.2 Post-peace agreement predatory dynamics

The formal regional political transition of power from Jakarta-appointed officials to the former-GAM leaders came with the withdrawal of the Aceh Monitoring Mission (AMM) in late 2006.

⁹ See Aspinall (2007b) on the centrality of human rights and justice issues to many in Aceh before and during the peace process, even while eventually sidelined. See Sindre and Ross (2021) on how the eventual illiberal peace failed to deliver on the promise of the peace agreement, in part due to the short-term nature of international oversight. See Melvin et al (2023) on the predatory nature of the peace from the perspective of local communities and victims’ groups.

The LoGA ensured GAM's political control of Aceh as they took over the top regional government positions (Ansori, 2012; Abdullah, 2019: 250). The GAM elite became powerful in various businesses through their political positions in the new Partai Aceh, and while they replaced the military and central administration in power, they took over some of the previous structures of clientelism and patronage in Aceh's political economy (Aspinall, 2018; Lund, 2018). The new elite's access to post-tsunami and post-conflict humanitarian funds played a significant role in ensuring the support and commitment of the former GAM elite, now in political power, to the peace deal during its first decade (Bertrand, 2021).

As GAM transformed itself into Partai Aceh in 2007, the new party secured the provincial election and governorship, along with a majority of districts and sub-districts (Aspinall, 2014; IPAC, 2015; Sindre 2018). Partai Aceh's ascendance created a new circle of power, with former GAM leaders gaining all the top positions and the former GAM elite becoming active and influential across the economy via their new political positions (Ansori, 2012: 35; Aspinall, 2009b, 2014; Lund, 2018). Strong local support for Partai Aceh and its conquest of the majority of political positions underpinned the power of the new elite, combining both executive power and access to the aid and central government funds then flowing into Aceh (Lund, 2018; McCawley, 2014). Establishing control of resource rents from the palm oil plantation industry was another key source of income for the new regional government (AICB, 2015), also facilitated via the LoGA. During this period, regional corruption increased but the public prosecutor's office intervened to protect the new officials in power (Aspinall, 2009b; Fadillah, 2016; IPAC, 2014). While detrimental to the search for post-war justice - although this was challenged at the local level by civil society actors pressuring the local government, with the eventual establishment of the TRC in 2018 - this peace-time political order (Lee, 2020) produced a stable illiberal local system (Sindre and Ross, 2021) that proved resilient to rapid decarbonization.

The post-war political order preserved exclusionary and elite-focused economic development as the Partai Aceh leadership aligned their interests with plantation companies, notably in palm oil (Ansori, 2011, 2012; Aspinall, 2009b; Lund, 2018: 431). These new alignments provided the elite with access to many economic opportunities including via managing new government contracts, projects and resource licenses (Aspinall, 2018: 17). The post-peace system enabled the new political and bureaucratic elite to extract new economic opportunities in their interests (Aspinall, 2018; Kent and Affiat, 2023). The development from an ethno-nationalist populist rebel movement (GAM) to a conservative regional political party (Partai Aceh) paralleled their shift towards rent-seeking in the regional economy (Lund, 2018; Sindre, 2018). Even new reformist initiatives by former GAM leaders, such as the "Green Aceh" policy proposed by the first elected independent governor, Irwandi Yusuf, were rejected by the rest of the new elite in Partai Aceh as potentially undermining to their new status and revenue stream benefits (Swainson and Mahanty, 2018). Thus, the Aceh region's political evolution from war to predatory peace followed a form of political stability found in many post-conflict transitions (Braithwaite, 2023). The Aceh peace settlement therefore proved resilient to decarbonization: the predatory peace had a lasting commitment from the new post-war regional elite, backed by a legal and political framework protecting their interests.

5. *The informal 'prosperity-security' settlement for the Papua region*

The informal 'prosperity-security' approach (Ruhyanto 2016) taken by the central government to manage conflict in the Papua region lacked the inclusive, formal, demilitarized and reformist elements of the Aceh settlement. However, it was still similar to Aceh's in two important ways:

- one, it was based in providing more autonomy to local and provincial governments; two, it allowed for resource revenue redistribution to benefit a new regional elite. While deeply problematic for justice and human rights, this informal settlement shaped a relatively stable predatory ‘peace’ through successive democratic governments between 2001 and 2025. Unlike the Aceh case, by 2025, these arrangements had not yet been tested against decarbonization: Papuan LNG resource rents were predicted to continue until the mid 2060s (GlobalData, 2023).¹⁰ In this section, we use Ruhyanto’s framework to evaluate this informal political settlement’s relationship to carbon revenue governance, and its potential vulnerability to decarbonization.¹¹

5.1 Political uprising and policy changes in the early democratization period

The first democratically elected Indonesian President, the moderate religious leader, Wahid, was initially keen on an open approach to Papuan political demands, enabling the brief ‘Papuan Spring’ between 1999 and 2001 (Muntaha et al., 2019; Smith, 2020; Viartisiwi, 2018). However, nervous of Wahid’s openness towards the region, following Indonesia’s loss of East Timor in 1999 and the scarring impact of UN intervention in that territory, along with rising tensions in Aceh, Wahid was eventually pushed by the national political and military elite to suppress the civilian Papuan movement (Bertrand, 2004, 2021; Smith 2020), especially against any separatist expressions (Brundige et al., 2004; HRW, 2011; Macleod, 2015; Viartisiwi, 2018). By late 2001, after Wahid was forced out, the Papuan Spring was violently crushed - the armed forces were redeployed alongside a resurgence in domestic security operations, and the assassination of the most prominent Papuan political leader, head of the Papua Presidium Council (PDP) Theys Eluay (Brundige et al., 2004; McGibbon, 2004; Virdaus et al., 2021).

President Megawati’s subsequent approach, as a hardline nationalist leader, expanded the ‘prosperity-security’ model, increasing repression whilst attempting to further decentralize local government in a divide and rule policy (Lele, 2023; Smith, 2020).¹² With popular support from parliament and the broader political elite, Megawati’s government asserted increasingly repressive activities in the Papua region (Bertrand, 2021; Viartisiwi, 2018). Papuan civil society organizations raised issues around ongoing anti-civilian violence and human rights violations, wherever possible, but there was insufficient national and international interest in pushing for political reforms or to forge a mediated settlement for the Papuan situation (Muntaha et al., 2019; Smith, 2020). Jakarta’s approach to the Papuan situation was worsened by the absence of a shared religious affiliation and unified anti-colonial political history, both of which had helped enable the central government to accept an eventually non-violent, negotiated political settlement for the Aceh region (Bertrand, 2021; Viartisiwi, 2018). Over the following two decades, these patterns of conflict management continued, balancing the expansion of benefits to the local elite, alongside the threat and imposition of state-sanctioned violence (Ruhyanto, 2016).

¹⁰ In 2009, BP started to extract large volumes of LNG at the Tangguh field in Teluk Bintuni, in West Papua province, which was set to continue through to 2055 (BP, 2019: 17; Bertrand, 2019; Dettman and Pepinsky, 2016: 8; Reuters, 2022). The Tangguh site was one of Indonesia’s biggest gas fields and BP’s main site in Indonesia (BP, 2019).

¹¹ The situation also remained vulnerable to any renewed political organization uniting the different parties within the Papua region with the external groups, led by political exiles, lobbying for an internationally supported referendum on Papua’s future (see Woodman 2023).

¹² These further reforms were partially blocked by Indonesian courts for contradicting the special autonomy laws (Bertrand, 2021; King, 2004)

5.2 The creation of a sustained informal predatory peace

Between 2004 and 2014, state repression in the Papua region deepened, and national and local civil society organizations and the media attempted with great difficulty to monitor the situation (Bertrand, 2021; OHCHR, 2022). The ‘prosperity’ benefits from the redistributed natural resource revenues, including from LNG, did not reach many ordinary Papuans - high levels of administrative corruption meant that the bulk of funds went to civil servants’ salaries, top officials’ housing and other benefits at local elites’ discretion (Bertrand, 2019, 2021). Ongoing decentralization also promised more resources for local elites, leading to the creation of new districts and the prospect of more provinces (King, 2004; Kivimäki, 2006). Meanwhile, new natural resource extraction rights were conceded to foreign and domestic firms with minimal compensation for local needs. However, large scale protests against these policies were difficult to maintain under the strict security legislation, and state security violence, including disappearances, torture, assassinations, extra-judicial killings, and attacks on villages (Bertrand, 2021; Smith, 2020). Some regulations were revised in attempts to appease local communities, but the corrupt distribution of special autonomy funds continued, binding in local elites, and ensuring overall (relative) stability alongside the division and undermining of Papuan political movements (Bertrand, 2019; HRW, 2011; OHCHR, 2022; Ruhyanto, 2016; Webb-Gannon et al., 2020).

Papuan and national human rights groups attempted to challenge this predatory settlement, but the combination of decentralization, administrative splitting and widespread patronage, along with the heavily securitized environment, exacerbated social and political divisions and undermined a unified cause (Anderson, 2015; Aspinall and Mietzner, 2019; Ruhyanto, 2016). The central government continued to block any routes to dialogue whilst distributing increasing funds to new local governments. In 2021, the Special Autonomy Law for the Papua region was extended, guaranteeing 70 per cent of oil and gas revenues to be shared with the region until 2041 (Setkab, 2021). This approach allowed the central government to blame co-opted Papuan elites and local bureaucrats for the failures the state had itself set up (Anderson, 2015: 47; Bertrand, 2021: 111). Different parts of the secessionist movement – including exile-led civilian organizations outside Indonesia, such as the United Liberation Movement for West Papua (ULMWP) – continued to lobby for more substantive governance changes, more inclusive local control of Papuan natural resources, and an internationally supervised referendum on independence (Cordell, 2023; Kivimäki, 2006; Woodman, 2023). However, while some progress was made on raising these issues at UN and regional governance bodies, such as the Melanesian Spearhead Group, there was minimal impact on Jakarta’s policies.

5.3 A fragile but enduring balance: The prosperity-security approach

In the late 2010s, the central government began to pay increasing attention to forming a national decarbonization policy, along with a net zero emissions pathway, including setting up various pilots for the Papua region.¹³ BP was one of the larger multinational companies operating in the Papua region, and responsible for the Tangguh LNG site, in West Papua province, where it organized various programs to develop carbon capture sites (BP, 2023). BP also organized a localized ‘Governance Program’ (BP, 2020: 4, 13), intended to support local governance and reduce corruption around resource revenue sharing (Dudung et al., 2023: 952; ADB, 2022: 57). However, according to an ADB review, affected communities remained unsatisfied by the

¹³ These included pilot decarbonization schemes for the Papua region, funded by Bappenas, and supported by the UK government, among others. (Alfiyah and Adestika 2023).

compensation and revenue sharing arrangements (ADB, 2022: 19), and it did not appear to have mitigated overall community concerns. By 2025, aside from such small-scale initiatives, there was no comprehensive regional strategy for decarbonization in place for the Papua region. Indeed, while palm oil was a growing industry across many parts of the region, and could potentially partially replace LNG revenues, Ruhyanto (2021) highlights that its rapid expansion had already threatened the livelihoods of local communities and created further social tensions. Furthermore, with the special autonomy benefits extended until at least 2041 (Setkab, 2021), LNG extraction set to continue to the mid 2060s (GlobalData, 2023), and, in 2022 and 2023, the discovery of new Papuan gas fields (Reuters, 2023; Fardah, 2022), decarbonization and related mitigation plans for the Papua region remained decades away.

With the promise of access to further revenues, and legislation for new provinces, community tensions were already exacerbated by the early 2020s (Widianto and Lamb, 2022). The governance of the whole Papua region, including but not only over carbon resource revenues, remained a highly contentious issue (Viartasiwi, 2018: 148; Wayar and Blades, 2022). In 2023, the United Nations recognized that the situation in the Papua region ‘cannot be mitigated without addressing the role of extractive industries and exploitation of natural resources’ (UNHRC, 2023: 6). But while the region continued to experience periodic protests, the informal peace settlement continued to manage the increasingly complex conflict. As long as the central government could rely on distributing natural resource revenues as a means to underpin political stability, and as long as Papuan elites continued to access those resource rents, while other political demands were repressed, the informal settlement looked set to survive.

Of course, the concessions offered via the prosperity-security approach failed to consider some Papuan leaders' most important demands - for them to be represented in formal negotiations over their region's governance status, and for an external and independently monitored referendum on territorial status (Woodman 2023). While successful in the short term, the longer term risks of a purely predatory strategy to peacebuilding, as highlighted by Le Billon (2003, 2008), remained unaccounted for. Yet without a substantive shift in national or global politics to support greater access to monitoring human rights in the Papua region, let alone a negotiated settlement, the status quo was set to continue from 2025 onwards. The greater risk to stability in the Papua region came from the settlement's reliance on the continued flow of LNG revenues. The latest research in other fragile peace settlements suggests that a rapid removal of these resource rents *would* lead to increased violent conflict, in the absence of other mitigating factors (Sarkar and De Waal 2024a). Hence, without mitigation strategies in place, or a change in political strategy, the Papuan peace settlement could potentially collapse via decarbonization, although this situation may not come for some time.

6. Conclusion

In this exploratory article, we have examined the effects of decarbonization on peace in two new case studies of fragile regions. Based on the case studies from Indonesia, we found that the *formal* predatory peace settlement in Aceh, initially based on carbon resource revenue sharing among the new local elite, was resilient to decarbonization with strong mitigation and political reform measures in place. In contrast, our preliminary evidence from the Papua region suggests that an *informal* predatory peace settlement, without a codified framework, mitigation strategy or political reforms, is likely to become susceptible to the destabilizing effects of rapid decarbonization, although this remains untested.

The transition from a military regime to democratic state opened up new prospects for peace in both the Aceh and Papua regions, alongside the opportunity for leaders in both regions to renegotiate access to and governance of their natural resource revenues, long extracted by the central government. The process and content of their emergent peace settlements differed substantially, but both can be understood as forms of predatory peace, dependent on the redistribution of natural resource rents and upholding the interests of local elites, rather than the general population (Ruhyanto, 2016: 495; Anderson, 2015: 7-8, 47), whether this was via legally based redistribution arrangements or more informal arrangements. The key differences in process and content were due to a combination of their contrasting political histories and related central government perspectives on these regional conflicts, as well as the different role of external mediation, international attention and civil society pressure.

In Aceh, the peace settlement proved resilient to rapid decarbonization as it was underpinned by a legal and political framework for natural resource revenue sharing that allowed for alternative revenue sources (in this case from palm oil and humanitarian aid) to fulfil the promise of the agreement to local elites. This inclusion of local elites to a new political-economic arrangement was an integral part of the peace process, at the expense of other more reformist elements of the initial agreement, although these had played a critical role through the earlier negotiations (Melvin et al., 2023; Sindre and Ross 2021).

In the Papua region, several of the conditions that enabled the long-lasting, if top-down and predatory, peace through decarbonization in Aceh were missing. More informal arrangements, backed by the redistribution of economic revenues and a focus on building regional prosperity, backed by heavy security operations, underpinned a form of illiberal peace (Smith 2020), and cemented the ‘prosperity-security’ approach to managing the conflict (Ruhyanto 2016). While the Papuan settlement was not an inclusive, negotiated or representative peace process, the region was stabilized politically overall, although human rights violations continued and local civil society groups consistently challenged the status quo (TAPOL 2020). As of 2025, political unrest, while ongoing at low levels, had not escalated significantly enough to force the government towards a different response.

As Bertrand (2021) argues, given that Papua’s leaders had limited participation in the design of the new autonomy legislation, it could only deliver limited outcomes in terms of resolving regional political conflicts. Indeed, some of the most prominent Papuan leaders went into exile, or were assassinated, immediately after democratization, thus limiting the scope of the informal settlement even further. The Papua region’s ongoing relative stability was conditional on repressive security measures, which may not be sustainable over the longer term. However, as the informal peace established in the Papua region had not been tested by decarbonization as of 2025, it remains too early for firm conclusions.

The Indonesian government’s approach was neither intended to solve the deeper causes of the Papuan region’s conflict, nor more widely include Papuan concerns. It avoided addressing political grievances and excluded Papuans from formal negotiations, as well as forbidding Papuans to represent themselves politically, unlike in Aceh. We find that the different political histories of, and perceptions towards, both regions, as well as the difference in international support and attention, had also played a critical role in determining the scope for political reforms along with the peace settlements. The role of national and international civil society groups in pressuring for reforms was also crucial in the Aceh case, but they had limited success in the Papua region. As of 2025, there was no guarantee that ordinary Papuans would indefinitely endure the repressive security measures, human rights violations, and such limited

political inclusion and representation, without more widespread benefits from the region's highly profitable carbon resources. In this context, if rapid decarbonization were to take place, without an extension of repressive security measures, the settlement would likely collapse. Further research on the role of international actors and civil society organizations in challenging or mitigating this predatory peace settlement is urgently needed.

Yet the resolution of the Aceh conflict and the enduring nature of that peace deal, even as carbon resource revenues rapidly declined, showed that political transformation was possible with sufficient commitment from, and trust between, the center and regional leadership in reaching a relatively more inclusive and sustainable political settlement. The Aceh peace deal was predatory, in many ways. It came with costs for local communities, including long delayed justice for war time harms, and many ordinary Acehnese had not yet seen transformative financial benefits from this peace. But it had - eventually - enabled important political and judicial reforms. The Aceh TRC, in particular, was the first time mass atrocity and war crimes had been formally dealt with in Indonesia's post-independence history. The Aceh case suggests that violent conflict can be successfully reduced and a stable peace deal successfully established in a fragile region, even while undergoing rapid decarbonization, when relevant political reforms and mitigation measures were eventually realized.

Further elements of the Aceh deal which added to its resilience, and which offers further policy lessons, were the overall political commitment from national and local leaders to ensure its longevity, the political reforms encoded in the settlement that empowered local leaders and organizations, and the international role in supporting the peace deal and resourcing of the region. In contrast, the Papua region's settlement should stand as a warning to policymakers: it retained potential fragility to future decarbonization, given that there had been limited political reforms and inclusion, no clear mitigation policies to replace carbon revenues, and no widespread support for an alternative approach to peace. Overall, both cases show the need for international actors supporting decarbonization in fragile contexts to pay closer attention to conflict sensitivities and related dynamics of predatory carbon compacts.

In-depth qualitative research would be necessary to more deeply explore the local data on natural resource revenue management, especially in the Papua region. But much less has been written about the Papua region's post-war settlement, at least in part because of the restrictions on and risks for researchers, activists and journalists examining issues related to conflict and governance in the region. Access remains a serious challenge to a full analysis of the Papuan situation. Indeed, it is a testament to the Acehnese local government that despite the predatory elements of the peace settlement, it has remained politically open, and progressive processes such as the Aceh TRC reflect this.

At the national level, important questions remain on the impact of, and relationship between, national green policies, including Indonesia's plan to reach net zero emissions by 2060, and the embedded nature of carbon resource revenue management within the informal peace settlement in the Papua region. Indeed, these are important questions for other countries, as carbon-reliant peace settlements could put breaks on national decarbonization policies, and policymakers need to consider both the conflict sensitivities around this, and possible solutions. While we did not have the scope to explore this dimension, it appears that for Indonesia, the national political discourse pushing for decarbonization and a greener economy has not accounted for the political destabilization that would likely follow from these policies if applied in the Papua region. Further research into the connections and tensions between national green

policies and regional peace settlements in fragile areas would be valuable to help to mitigate the risks of such destabilization.

Globally, the evidence on political marketplaces and fragile states has suggested that carbon revenues tend to motivate secessionism (Lujala and Rustad, 2011). However, it appears that in the Papua and Aceh regions, enabling local elite access to these revenues has *diminished* secessionism somewhat. Whether this is sustainable depends on the other factors we have discussed. But one important and understudied area is the role of national and international carbon extractive companies in maintaining carbon-reliant peace settlements in fragile areas, even when there are both government and civil society pressures to decarbonize those economies. Further comparative research is needed to more deeply explore the relationship between carbon extractive companies and predatory peace settlements in such complex and repressive environments.

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Author Biographies

Claire Q. Smith is a Senior Lecturer in the Department of Politics and International Relations, University of York, UK.

Susannah G. Williams is a PhD researcher in the Department of Politics and International Relations, University of York, UK.

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