

# **NOT RESOURCE CURSE NOR RESOURCE BENEFIT, BUT ‘RESOURCE NEGATION’? COMMUNITIES AGAINST COAL SEAM GAS ON THE FOSSIL FRONTIER**

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Overcoming the problems of resource dependency has been a major preoccupation for mainstream and critical economists at least since the wave of decolonisation in the middle of the Twentieth Century. Newly independent countries, ostensibly masters of their own destiny, were bound hand and foot to international resource extraction. Unequal relations of production, on a world scale, created a form of structural servitude for the post-colonial world (Amin 1976). Escaping unequal development – or at least ameliorating it – became the key preoccupation of the then-emergent field of development studies. That development conundrum was directly transposed into debates about the ‘resource curse’, and how to overcome it. As with developmentalism more widely, the central debate is between ‘modernising’ approaches aiming to civilise resource dependence and more critical approaches seeking to break with it (Collins, this issue). More recently, in the context of widescale socio-ecological crisis, most notably climate disruption, the very idea of ‘resources’, whether as a curse or as a benefit has been radically revised. The implications of this transformation are directly played-out today in community-level struggles against extractivism - and nowhere more so than on the ‘fossil frontier’.

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Mainstream accounts of the resource curse, led by the World Bank, chart the 'intelligent public policies' needed to secure resource rents for 'resource-led growth' and local benefit (Lederman and Maloney 2007:10). This approach is based on the assumption that resource rents are 'neither curse nor destiny', but a benefit in terms of imputed economic value if governed and regulated effectively. To assess benefit, non-economic values are subsumed as fungible, and subordinated to the extractivist purpose. The approach has a strong developmentalist logic: it points to high-income and resource-dependent countries, such as Norway or the USA, as 'success' narratives to guide governments in low-income contexts. It is also highly statist in assuming the national state has all the necessary knowledge and capacity as the main means of resolving the resource curse (Humphreys *et al.* 2007; Abumere 2022). These assumptions of extractivism, developmentalism and statism are radically challenged by the logic of resource appropriation under socio-ecological crisis. There is a deepened understanding of the socio-ecological impacts of extractivism that can negate any possibility of 'resource benefit' (Fuhr and Wykes 2012; Engen *et al.* 2011). As part of this, there is a widened and more critical understanding of 'development', as posing a problem for all societies under the current global socio-ecological crises, including for the assumed 'success' cases (Brueckner *et al.* 2014). There is also a shift to wider sources of social agency, *beyond* and *against* the state as well as *through* the state, especially in terms of social mobilisation against the resource extractivist paradigm (Kroger *et al.* 2021). These developments are not new but have come more to the fore with the advent of intensifying climate disruption and wider socio-ecological crisis.

This article addresses these challenges through an account of community responses to a proposed coal seam gas-field in Australia, voiced at a seven-day official public hearing in 2020. The proposed gas-field is located in one of the world's richest countries with one of the highest per-capita greenhouse gas emissions. The project has extensive cultural, socio-economic and environmental impacts, extending across the wider region and beyond. It has been championed by a fully captured local and federal state structure, but vociferously opposed by a broad alliance of local and region-wide civil society and community-based groups. Taken together, the community responses offer a powerful case study of the limitations of the dominant resource curse model. Most directly, they underline the impossibility of 'coexistence' with coal seam gas, posing it as an incommensurable challenge to the region's future. In doing so they point

very clearly to a ‘leave it in the ground’ approach – neither ‘resource curse’ nor ‘resource benefit’, but ‘resource negation’. Opponents of CSG do not want the ‘curse’ but neither do they want the ‘benefit’ – they want to designate coal seam gas as a ‘resource’, and leave it sequestered in the ground, as it has been for millions of years.

## **Coexistence or incommensurability?**

The key question posed by the resource curse thesis is whether resource extraction, especially mining, can today be made commensurable with livelihood and socio-ecological sustainability. Only then can it deliver ‘benefit’. Where impacts lead to the permanent loss of intrinsic value they become immeasurable. Intrinsic value always poses a major problem for capitalist accumulation, and not least for resource extraction. Commensurability is the foundation and precondition for capitalist commodification – everything in the circuit of capital must be rendered commensurate and accorded an exchange value to be tradeable. Yet ultimately all commodities have intrinsic value separate from their price: only money has pure exchange value (and ironically is therefore not a commodity). Reflecting this, key production factors such as land, labour and money cannot be produced by capital: they are ‘fictitious’ and have an autonomy and existence outside capital (following Polanyi; Fraser 2014). In this they produce recurrent crises, of ecological exhaustion, labour shortages or strikes, and financial instability.

There are efforts to manage the resulting contradictions, to address and ‘socialise’ them through the state (see O’Connor 1997), thereby rendering them at least contingently commensurable. These are the trade-offs, historic compromises and environmental ‘offsets’ that reconcile opposites based on false equivalences. This, in large part, is the logic of ‘resource’ management that paradoxically fails as it succeeds in legitimising and prolonging extractivism. More and deeper extraction, even if legitimised by the state, contributes to a cumulative crisis, a crisis of exhaustion rather than a cyclical crisis, that only intensifies over time, resisting management (Bellamy-Foster 2002). This is especially true of ecological impacts, as exemplified by climate change, where biophysical dynamics exert an unmanageable force on society. Here, fossil fuel resources such as ‘natural’ gas, are effectively ‘climatised’, transformed from assets for livelihood into threats to survival (Aykut *et al.* 2017).

Clearly, where extraction involves the permanent destruction or loss of ecologies necessary for life, it, by definition, negates sustainability. Predetermining this is the concept of the 'resource' itself. When a mineral deposit is identified and designated a 'natural resource', it becomes capitalised as an asset and gains a dollar value on the balance sheet of its owner. Its integrity as an aspect of ecology is removed and it is appropriated as a 'gift of nature' for capital (Moore 2014). Once capitalised, it is integrated into the circuits of capital and is always potentially subject to extraction. Regulatory debates about the exploitation of 'natural resources' then seek to weigh these interests of capital against the public interest, to achieve 'balance'. Regulation for resource management (to overcome the resource curse), by definition, assumes resource appropriation can be made commensurable with the public interest – the only question being *how* to achieve this. Contestation beyond the resource curse, in contrast, poses the need to prevent extraction, and embraces alternative socio-ecological relations and alternative modes of livelihood. It is this latter orientation that is the focus for this article.

## **Contesting Gas on the Fossil Frontier**

The specific case on which this article focuses is the attempt to establish a new gas field of 850 wells to access coal seam gas in the Pilliga, a large state forest in Western NSW near the town of Narrabri. The Eastern Star gas company gained exploration permits for the region in 2007 and was bought by Santos, an Australian gas company, in 2011. Santos submitted a proposal to develop the 'resource' in 2017 and a public inquiry into the project under the government-appointed Independent Planning Commission (IPC) was then held in 2020. There had been a long-running public campaign against the proposal and the inquiry attracted a record 23,000 submissions, with seven full days of hearings. The IPC ruled in favour of the project subject to conditions, but community opposition continued to disrupt the required gas pipelines and in 2022 the local Gomeri Indigenous Native Title claimant group voted against the project.

At the IPC hearings, there were 330 community-level speakers, each being allotted five minutes to address the three commissioners. The official transcript extends over seven full days and 400,000 words, eighty per cent from community speakers (IPC 2020). After many years of severe drought and the collapse of rural waterways, followed by the most devastating

bushfire season, and in the context of decades-long struggles over failing climate policy, the Inquiry sat at the centre of Australia's (and the world's) climate maelstrom. A wide range of concerns were raised about the gas project, ranging from impacts for Indigenous peoples, to biodiversity, water and farming, local and regional development and energy transitions, as well as climate change. Numerous alternatives were also asserted, relating to Indigenous culture, local livelihood, farming, tourism, decarbonisation, and renewable economies. The Inquiry enacted and dramatized the deep systemic rift that had emerged over fossil fuel developments globally and posed multiple incommensurable challenges to fossil capital.

### **Last gasp for gas?**

In 2018 the United Nations had announced that emissions from fossil fuels had to fall by forty-five per cent by 2030 for there to be any chance of climate stability (UN 2018). The CSG Santos project would produce emissions until 2045. Further, it would secure a bridgehead for the CSG industry, likely to unfold across the region as it had elsewhere in Australia. Industry and government claimed that gas was a low emissions substitute for coal despite extensive uncertainty over how much gas escapes in the production process ('fugitive' emissions). Methane itself is very potent greenhouse gas, with an impact over 20 years that is 84 times greater than an equivalent CO<sub>2</sub>.

The Narrabri gas project sits in the midst of the transition process. Gas advocates present it as a 'transition fuel' to complement intermittent wind and solar power. Gas, though, is superseded by the advent of 'baseload' renewable energy. With low-cost wind and solar power able to deliver continuous power with the aid of batteries, green hydrogen and pumped hydro, the imperative for transition gas is fatally weakened. Battery contracts were outcompeting 'peaking gas' on price before 2020 (see for example Roth 2019); and in northeast United States batteries were even starting to replace existing fossil fuel capacity (Olinsky-Paul 2021). Reflecting this, at the time of the Inquiry, the Australian Energy Market Operator had already mapped a fall-off in gas demand even with a shift to a system based on seventy-five per cent renewables (AEMO 2020). This closing window for gas was reflected in investment decisions, with \$20 billion written-off across the sector in 2020 and AGL converting its coal-

fired power station at Liddell in NSW to a battery plant (not to a gas-peaking plant). The price shock in 2022 following the war in Ukraine boosted the sector, but also underlined the need to overcome dependence on it (AER 2022).

For Santos, as the project proponent, there was an urgency to monetise its Narrabri project. The company had already written-off \$7 billion in gas assets 2015-20, and an additional \$1 billion in July 2020 (IEEFA 2020; Macdonald-Smith 2020): this amounted to about half of its claimed global asset base in 2019, of \$17.5 billion (13.6 billion in Australia). The company had invested more than \$2 billion in the Narrabri project and the company had put in place an impressive architecture of state capture to secure the approval. The scope extended from lobbying for a Federal ‘gas-led’ post-covid recovery plan, to securing endorsement from the NSW State planning department and promising to dedicate the gas to NSW (Australia’s gas production had nearly tripled over the last decade, with almost all going to export; Geoscience Australia 2021). Locally it provided funds to enable support from the local council, collaborated with the local Aboriginal Land Council and provided community-level grants, including for sports clubs. The Federal Government’s initiative in 2019 to support the gas sector is especially noteworthy. The offer to NSW of an additional \$960 million in federal funding for renewable energy, on the condition that NSW Government facilitate approvals to ‘inject an additional 70 petajoules of gas per year into the east coast market’, set a new high in fossil fuel promotion (Coorey 2020). At the time, Narrabri gas project was the only existing gas proposal in NSW of that size. The notion that federal assistance for renewables could at the same time enable an indirect Federal regulatory intervention into State-level energy policy to favour gas demonstrates the depth of the climate contradictions in play.

### **Community push-back**

CSG has been highly controversial in Australia and projects have faced strong grassroots opposition. The industry gained its first foothold in Queensland and was expected to spread across other States, but for a decade had been effectively halted. ‘Lock the Gate’, a grassroots movement to deny gas companies access to land, was established in 2010, organising rural communities across Queensland and then into NSW and Victoria, learning from the Queensland experience. In 2012, the

conservative Coalition was elected to government in NSW on a mandate of limiting the scope of CSG. The previous Labor NSW government had awarded exploration licences to prospect for CSG across forty-five per cent of the State; and these had led to concrete proposals in places as diverse as inner Sydney St Peters, suburban Camden and rural Bentley. In each of these three cases, and in others, gas was heavily contested. 'Lock the Gate' groups spread across the State, blocking the industry. The incoming Coalition government instituted a 'buy-back' of licences (sixteen in all) and, as of 2020, there were only two remaining: the Santos Narrabri project and AGL's Camden project in SW Sydney, which closed following AGL's 2016 announcement that it would exit the industry.

In 2020 Narrabri was the only focus for the industry, along with a further eighteen exploration licences, thirteen with Santos. These licences extended from Muswellbrook in the Hunter Valley, west to Dubbo and north to Moree and the Queensland border, covering a total of 56,250 square km. Santos initially sought to establish a gas-field across the entire agricultural region near Narrabri but, facing opposition, scaled back to 850 wells mainly located in the State-owned Pilliga forest. Throughout, government support for the project was vocal and consistent. CSG is prefigured as a 'market' opportunity, pro-growth, and pro-jobs (Mercer *et al* 2014). States redesignate land for extraction, with 'coexistence' across different uses taken as a given, with no concept of 'opportunity cost' (Kennedy 2017). State prerogatives and industry legitimacy are reflected in planning regimes that privilege mining projects: in NSW mining is defined as 'state significant' and is assigned to the Minister-appointed IPC. Affected communities have no right of appeal to the Land and Environment Court, though projects rejected by the IPC can be approved by the Minister if defined as 'State Significant Infrastructure' (Sherval 2019).

Broad public controversy over the Narrabri project has been clear, at least since 2007. There has been direct mobilisation, including community blockades of test sites, as well as demonstrations and actions extending from the region to decision-makers in Sydney. Research into CSG mobilisations has highlighted how opponents combine unofficial expertise with powerful affective connections to communities and environments (Einfeld *et al.* 2021; Threadgold *et al.* 2018). Mobilisation is seen as empowering and linking diverse opponents (Kuch and Titus 2014; Mann 2018), and the Narrabri case is seen as mobilising a shared stewardship,

based on new alliances both locally and across the State (Colvin *et al.* 2015; Sherval *et al.* 2018).

Opposition is interpreted as a process of anticipating and confronting the risks of extraction, while forcefully putting wider energy justice issues onto the agenda (Espig and de Rijke 2016; Macpherson-Rice *et al.* 2020). Some researchers make recommendations to enable stronger legitimacy: CSIRO researchers funded by the gas industry have claimed communities accept gas once it is approved. Others have suggested a less constrained planning process with rights to appeal would assist (Sherval 2019). Still others have pointed to the need for an expanded concept of ‘social licence’ (Luke *et al.* 2018). This article, reflecting the broader theme of this issue of the journal in which it appears, approaches the issue through the resource curse debate and posits the notion of ‘resource negation’ as encapsulating the key arguments of opponents.

## **Insights from the Narrabri gas hearings**

Six aspects of the statements made to the Narrabri IPC hearings, all asserting incommensurable impacts, can be identified. First, there was a strong emphasis on Indigenous dispossession, as the irredeemable loss of cultural connection and meaning. Second, there were concerns about the project’s impact on underground aquifers in terms of permanent geological disruption. Third, concern was expressed about irreversible environmental degradation, including the loss of bio-diversity and implications for climate change. Fourth, many farmers spoke about economic displacement and impossibility of coexistence between fossil gas and agriculture. Fifth, there was a focus on social dislocation and irreparable fracturing of social and community relations. Finally, major concerns were expressed about corruption and the approvals process, undermining political legitimacy.

### **Indigenous dispossession**

Indigenous speakers posit existential challenges and alternatives across all aspects, from degradation of geology and environment to socio-economic dislocation and political manipulation. Indigenous use of the Pilliga forest area has been continuous through colonisation, with a direct lineage for local Gomeroi peoples, including to ancestral sites in the forest. The company had worked with some Traditional Owners to verify the

archaeological survey: one outlined they had identified ‘250 Aboriginal recorded sites’ and were confident the company would avoid damaging them (Griffiths).<sup>1</sup> Against this, there were statements from local Indigenous representatives and Traditional Owners stating the project would destroy Aboriginal culture. One stated:

I’m a member of the Aboriginal Land Council for Pilliga. I’m a Kamilaroi man. I’ve lived here all my life. There’s no elder or anybody that wants this project to go through. To me, if this goes through, it’s a declaration of war, and I will take it to you. I don’t want to see my land destroyed (Nicholls).

A statement from Polly Cutmore, a Gomeroi Traditional Owner, brought the proceedings to a standstill:

We’ve had bushfires, we’ve had fish kills, we’ve had no water in our rivers in Gomeroi from the top as far as Inverell to Copeton all the way down to Walgett. My people have been suffering and we can’t suffer no more [...] We’ve had this done to us over and over for 250 years. It started with the massacres [...] Please – can you please just stop it. We don’t want it no more. We want to live. We want to be able to live and enjoy life in our country. We can’t have this any more (Cutmore).

Following this statement there was a lengthy silence, with no response from the panel.

The presence of Aboriginal culture in the landscape is central. One speaker drew analogies with European culture:

The Pilliga holds places of huge significance. Out there you will find our churches. You will find our schools. You will find places where we celebrate. You will also find places [...] where we perform our most sacred and secret ceremonies [...] We’re tired of being denied, as Gomeroi people, to practise our culture and to maintain, protect and preserve our heritage and our country and our waters [...] We don’t come into your community and tear down what’s important to you’ (Whitten).

Another conveyed the personal impact:

In my culture all trees are special, but some are sacred. Some are passed from generation to generation. And one such tree actually belonged to my grandfather and his grandfather before him and one day it might have been mine. But in 2015, for a very similar project, this tree was

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<sup>1</sup> All bracketed names refer to the presenter who made the quoted statement at the Narrabri IPC hearings (IPC 2020).

cut down. And so too was this pre-colonial connection to it. I cannot tell you how much that hurt (Field).

Many expressed the depth of community anger:

If the government rules with Santos in this, let no person ever say to any Gomeri person ever again that the crimes of the past happened hundreds of years ago because they are happening right now. Right now. Right now. This very second (Whitten).

The loss is presented in intergenerational terms:

As a parent with a young child who I want to bring up strong in her culture and identity as a Ngarabul and Wirrayaay person from the Gomeri Nation, you know, it's important to me that she has access to those sacred sites on our country. It's important that she is able to grow up along the rivers and creeks and other waterways of our country, you know, like I did as a young Aboriginal person, and to learn her culture and to learn the song lines and stories of that country (Winzer).

The failure to address Indigenous peoples as custodians, not simply as stakeholders, was raised by several presenters. One speaker stated the IPC was itself culturally exclusionary:

I feel frustrated that we're not standing before Gomeri Commissioners but yet again in this 250-year history of colonisation we're not giving the traditional owners the respect to make decisions about their land that they have a sacred responsibility to uphold (Watson).

The format ignored norms of Indigenous expression: 'This is an intimidating, non-Aboriginal hearing, not an Aboriginal-led process of yarning and deep listening to Gomeri Gamilaraay elders' (Maltby). There was no possibility of vetoing the project 'Aboriginal people are forced to the table, under duress' (Craigie).

The company claimed the project could coexist with Indigenous culture and some speakers stressed project benefits:

There's business development, agricultural site management, language, culture, and elderly and youth programs, economic and well-being development. That's for our people. Contracts and opportunities for Aboriginal businesses (Griffiths).

Others stated the gains were limited: 'If indeed there are any benefits to be had, they are on an individual basis and not a whole of community gain' (Tighe). Promises of employment had been rejected: 'Those who lie to communities with high unemployment like ours about promised jobs enrage us' (Spencer). The offers had divided the community:

promises of possible money and jobs has served to divide and create extremely stressful splits between Gomeri families leading to severe mental health issues (Maltby).

In terms of strategy, several speakers stressed how the Gomeri Native Title group had become more mobilised against the project. The historic vote against supporters of the project in 2016 had removed assent for the project, though Santos had still ‘not consulted with the present native title applicants’ (Lyden). Others made a direct connection with the concerns of farmers and Indigenous community members, about water especially:

Water is the cultural thread which binds our Gamileroi identity and connection to country through oral histories. I cannot stress enough the importance and the significance of water. Truth be told, water is the great unifier bringing Aboriginal and all non-Aboriginal people alike. There is no doubt that Santos will commercialise, over-extract and pollute our water (Tighe).

### **Geological disruption**

Impact on underground water was a key point of dispute. The gas project was anticipated to threaten preexisting barriers, aquitards, between coal seam gas and underground water: ‘an impermeable layer of rock is no longer impermeable when you drill a hole through it’ (Bragg). The damage, once done, could not be undone: ‘a damaged, polluted aquifer cannot be cleaned or rehabilitated’ (Kirumba). Water and CSG were in collision: ‘the aquifers, they’re all interconnected [...] you poison one, you poison the lot’ (Craigie).

Supporters of the project put faith in regulation (MacDonald). Opponents countered that ‘the complexity of groundwater hydrology perplexes even the best geologists in the world’ (Leedham). Another pointed to Santos’ record: ‘Santos had flatly refused to commit to installing groundwater monitoring bores’ (Vickers). Many referred to the Queensland experience: ‘In Southern Queensland, nearly 600 bores on farms have lost their water supply due to CSG’ (Mateer). Many stated the impacts were irreversible: ‘the damage will be permanent, like Humpty Dumpty, you can’t put it together again’ (Vickers).

There was great reverence for the region’s underground water:

almost a quarter of this country, most of inland Australia, would be entirely uninhabitable without our Great Artesian Basin and the most critical recharge area for the GAB is Pilliga sandstone (Kennedy).

With Santos denying the significance of the Pilliga as a recharge zone, one speaker countered: 'I once asked an old bushie about the Pilliga. He said, "Why do you think there are no big rivers coming out of such a big area?"' (Marshall).

One quoted the latest science on the viability of the wells: 'industry records show that 6.5 per cent of well casings fail initially, 60 per cent fail over 20 years, but all fail over time' (Bennett). The effects were intergenerational: 'It is axiomatic, in my opinion, that the poisonous water will leak into the great artesian basin either during the extraction or [...] when Santos is long gone' (Breen). Furthermore, there was the problem of wastewater contaminated with salt, heavy metals and hydrocarbons. Storage ponds for the production pilot had already overflowed: 'there had been efforts to replace topsoil and re-plant, but the company has 'been unable to rehabilitate these dead areas' (Schultz).

### **Environmental degradation**

Concerns about environmental degradation centre on climate change and biodiversity. Many speakers stressed that climate change poses an irreversible threat: 'Pandora does not go back into her box' (Longmuir). In approving the gas field, the NSW government was 'like a 'spoilt kid at the party, scratching for the last of the lollies' (Teagle). The project was 'an intergenerational obscenity' (Boyd). Several spoke of the unbearable heat: the yearly average of twenty days above 35 degrees had almost doubled to 'over sixty-five days' (McCalman).

The department had argued Narrabri CSG would replace high-emitting coal and hence reduce overall emissions, but many speakers challenged this: 'Burning one fossil fuel to replace another does not make sense' (Donley). Another likened the claim to 'spruiking the benefits of carpet bombing over a nuclear strike' (Lyford). The claim that CSG produces less emissions than coal – about half as much – was widely contested. Gas 'peaking' plants needed to be on-demand, and hence were much less efficient. Gas wells release underground CO<sub>2</sub> and leak 'fugitive' methane into the atmosphere, yet Santos had refused to release its production data on leakage. Methane's greenhouse impact was estimated as being 25 times that of CO<sub>2</sub>, yet this was only possible 100 years hence: in 20 years time it would be '86 times the warming potential' (O'Leary).

The effort to massage emissions led many to question the motives of the company. One presenter reminded the IPC that: ‘three years ago [in 2017], Santos told its shareholders that its business plan was based on an increase of four degrees Celsius in the global climate’ (Hinman). Santos’ statement had been made by the Chair of the company at a shareholder meeting, where he argued that a 4°C outcome was ‘sensible’ and ‘consistent with good value’ (Davidson 2017).

There was the related impact on biodiversity. The Pilliga forest had been logged but regrowth left a large integrated forest, a ‘globally recognised, Key Biodiversity Area [...] 500,000 hectares of rare, intact, temperate eucalypt woodland’ (Goswell). The Company’s limited surveying had found ‘10 threatened plant and 35 threatened fauna species in the gas field area’ (O’Hara). It was a ‘national jewel too precious to plunder’ (Hosking).

Fear of fire was central. With the full project there would be permanent gas flares ‘40 metres above the tree line’ (Small). The fire risk was extreme: the Pilliga is a ‘tinderbox’ and flares would burn even on ‘the most extreme fire days’ (Watt) amid a ‘network of pipes of flammable gas’ (Gray). Even the small-scale test flares were ‘a loaded gun pointed at us all summer’ (Donaldson).

Waste disposal was widely cited: the

licensed waste facility has to take the 850,000 tonnes of salt produced over the life of the project, plus 720,000 cubic metres of coal-based drill cuttings, which is equal to 10,000 40-foot shipping containers (Barrett).

There was a veil of secrecy over the ‘chemical additives that Santos add to the pipes to extract the gas’, with ‘disclosure [...] not mandated’ (Wynter). The health risks were severe: ‘bone marrow cancers, miscarriage, prostate cancer, decreased male fertility and infant neurological disease’ (Vickers). None of the risks were considered by the planning department (Pedashenko).

### **Economic displacement**

The department assumed the project would have no significant impact on existing economic activities. Opponents defined gas as an existential threat. As one put it, CSG would ‘make our property unviable, uninsurable, unliveable and unsaleable’ (Robinson). Fears were based on the Queensland experience: ‘many sold out to the company, their dreams dashed, and their homes were bulldozed’ (Horton).

Loss of groundwater was widely feared:

I thank my lucky stars, the blessings every day to having access to this beautiful spring water that sustains not only our property that produces beef and other crops, but sustains – it's the life blood of this country (Sanders).

Many farmers testified to their dependence on the artesian basin: 'we would literally have to walk off our property if we lost our artesian water; our property would be worthless' (Kennedy). The local economy hinged on water: 'can we risk the current jobs sustained by this water in agriculture, town businesses and tourism, all for the creation of a possible 200 Santos jobs?' (McCalman).

Compensation was rejected: 'I will be compensated, but the compensation is absurd; Santos have offered me a water tank' (Pockley). Insurance was being withdrawn: companies would 'not insure public liability risk on land where there is coal seam gas infrastructure or mining' (Russ). This confirmed farmers fears: 'Why, then, if this industry poses no risk to my region, can't we get an insurance policy to cover the risks?' (Macrae). There were also risks to markets: detection of contaminants would 'mean that we would be immediately suspended from current and future market for our product' (Ciesiolka). One resident spoke passionately about the impacts on tourism: 'No one goes to a toxic dump for fun' (Brady).

Project supporters stated that gas-fields could coexist with farming, offering diversification: 'we don't have to choose one or the other; we can have both'. The drought had demonstrated the need for gas, to 'future-proof our town, area, and economy' (Flower). Gas would save the region: 'there is no future for the next generation within our area without diversification and the energy security created by the Narrabri Gas Project' (Goddard). The project would make Narrabri a 'very large inland port' (Redding). Opponents rejected the idea that a fossil fuel company could insure the region against the effects of climate change. For many the drought demonstrated not the failure of agriculture but its resilience: 'Yes, there's been a downturn due to the drought, but there is no reason to threaten a permanently sustainable industry for a quick buck' (Marshall). More generally: 'There are alternatives for energy but [...] there is no replacement for good quality water' (Matchett).

Opponents strongly supported regional diversification, not into fossil fuels but into regenerative farming, tourism, Indigenous economies, and especially renewables: 'There are vastly more cost-effective alternatives

in the form of clean energy and clean energy jobs' (Hodgson). As one put it: 'We are able to coexist with renewable energy sources, but we'll never be able to coexist with the gas industry' (Perry). Many contrasted the boom-bust cycle of CSG with the long-term viability of the farming economy: after 25 years the wells would be exhausted, the whole region 'Swiss-cheesed to no purpose' (Chiffey). In contrast, farming was 'potentially worth trillions of dollars to our country over the next century or so' (Hargraves).

Economic assessment of the proposal had unaccountably neglected to mention renewables: 'Income projections by CSIRO have misleadingly ignored competition from the growth in renewables' (Howard). Structurally, CSG was an 'outdated industry [...] on its last legs' (Robson). One speaker drew a particularly sharp analogy – it was 'like trying to work out how a horse and cart can travel on modern expressways and then who will clean up the mess after them' (Crossman).

### **Social division and distrust**

Many presenters were concerned at Santos using financial inducement to gain consent: the 'only people who want coal seam gas are the people with a vested interest in it' (Storer). For supporters, the company was a model citizen 'trying to provide a service, minimising risk and maximising benefits to the communities surrounding them' (Campbell). For opponents, the company's 'beads and trinkets' (Ciesiolka) had fuelled division. This was reflected in opinion polling: the

results of eight surveys show the opposition to the project varies from 2 to 1 against for the local Narrabri area and up to 9 to 1 against [...] when the wider community is included (Murray).

Local conflict over the project was a war of attrition and took its toll: 'I have watched many people's health, finances, their properties, their mental stability, all erode over time' (Wiles). For many the impact was profound: 'It's hard to imagine unless you've lived through a long, protracted battle against a seemingly insurmountable foe, the toll it takes on your whole being' (King). The local population had become citizen scientists, but at a cost:

ordinary citizens to have no choice but become experts about this toxic industry in their communities. This is a massive social impact that robs people of time, emotion and productivity (Lyford).

There is also concern at the corruption of public infrastructure spending, especially the proposed pipeline, but also proposals for a new inland rail, re-routed to Narrabri through the Pilliga forest, and plans for a new government-funded gas generator. These and other public infrastructure commitments were the 'only thing that's making this project viable at the moment' (Lanzini). As one put it: 'This is hooking us on gas and creating the demand, isn't it?' (Kelly). The logic was inexorable 'once the supporting infrastructure is in place', old wells would become exhausted and new wells would be needed (Green).

Infrastructure would drive further expansion: the Pilliga project was a 'Trojan Horse' (Spark), a tactic to gain a foothold in the region. The company had originally sought to access 'high gas-yielding coal seams below Liverpool Plain'; this had failed 'following a massive landholder opposition, and they quickly retreated to the seclusion of the Pilliga Forest, where government approval was likely' (Kuhn). The Pilliga gas-field was a 'loss leader', costly and unviable in itself but providing a 'gateway' to much richer deposits across the plains: 'Santos has shown investors plans for at least seven other gas-fields in the area' (Irving).

### **Political de-legitimation**

Many speakers condemned the planning department for its 'grovelling assessment' of the project (McEvelly). There was outrage at the 'utterly disingenuous' dismissal of local concerns (Hartley). A key aspect of the approval was reliance on 'adaptive management', rather than foresight and planning, with many project impacts being uncertain or unknown. One speaker put it this way: 'Santos says they can't give a better model until the project starts [...] They're saying they don't know what will happen' (Sherwood). The use of contingent language is critical: 'impacts of the project can be reduced', 'avoiding to the greatest extent practicable', 'minimise the economic, social and environmental impacts'. These phrases were used on 64 occasions' (Murray). As one put it: 'this is not planning; this is a disaster in the making' (Pryor). The logic is shocking: 'irreversible impacts are dismissed, and empty assurances freely given in a flurry of meaningless phrases and deliberate loopholes' (Munro).

One speaker spoke of the '10 years of researching, navigating spin and enduring moving goal posts' leading to 'acute mistrust of the CSG industry' (Robertson). The company had itself denied access to key data,

‘so how can they be trusted with such a high-risk project?’ (Ottignon). The department had failed require the 2014 NSW Chief Scientist’s preconditions for the CSG industry, which included baselines for monitoring impacts, environmental insurance and rehabilitation funding, creating ‘community cynicism, frustration and their sense of injustice’ (Munro).

Many presenters criticised the planning department’s reliance on research undertaken by the ‘Gas Industry Social and Environmental Research Alliance’ (GISERA), a partnership between the CSIRO and the gas industry. GISERA reports

were published as if they’re rigorous science from the CSIRO when, in fact, they’re industry-driven scientific research that doesn’t take into account very important evidence (Walsh).

As one presenter put it: ‘the department constantly rejects independent science in favour of industry-funded modelling’ (Irving). GISERA opinion polling was ‘skewed to the positive’, similar to research funded by tobacco companies (Holley); and its report on fugitive emissions in Queensland CSG had pre-selected 6 wells to test from 19,000, like checking 6 sheep from a ‘flock of 19,000’ (Martin).

### **Alliances for ‘resource negation’?**

Many speakers referred passionately to the strength of community opposition to fossil fuel projects. One local opponent stressed the new alliances that were changing rural life:

I’ve been a stock and station agent in the eastern half of Australia for 40 years. Over that period, I’ve never seen such vehement and united opposition to any project where Aboriginal, town and farming communities stand together in solidarity against a risk to our water (Chadwick).

Another stated that the movement was ‘highly organised; it is farmers, it is town folks, it is Greenies, it is Aboriginal landowners, and many, many more’ (Lawrence).

Such alliances are formed despite historical and sometimes on-going tensions between Indigenous groups, farmers and environmentalists, as well as between rural interests and town residents (see Vincent and Neale 2016). Despite this, a wide and diverse constituency had formed, ‘investing their intellectual capacities, their time and physical labour,

making sacrifices in their working and family lives, to extend their knowledge in depth and breadth across a multiplicity of issues (Hartley). After more than a decade of action, it had 'lasted the distance' (Boehm).

The opposition had effectively redefined the question of CSG into a question of democracy. As one speaker put it:

I haven't drunk the Santos Kool-Aid, and I still have faith in democracy' (Hunter, N.). This is a central insight, voiced with great power: When 96 per cent of the three and a half million hectares of the north-west which was surveyed said that they opposed the Narrabri Gas Project surely the government must listen to them, or is this not a democracy any more? I have never in my 72 years seen such incredibly united communities, towns, farmers, Traditional Owners all so strongly united to stop this project and to save our land and water (Kennedy).

Such unity is not easily won, and is always contingent

The assertion of a multiplicity of voices is central:

You've heard from Traditional Owners, local farmers, fireys, mums and dads, grandparents, and relatively young people. Hundreds of citizens of New South Wales have spoken here against the Santos proposal. For everyone who has spoken, thousands stand behind them (O'Shannessey).

A new and active public had emerged on CSG. Even the IPC hearings had become a vehicle for expression and mobilisation, like 'people's assemblies to advise and inform our democratic processes' (O'Shannessey).

## **Conclusion**

Jason Moore has characterised socio-ecological relations under capitalism as a 'messy bundle of relations' (Moore 2011: 5). The imposition of gas extraction in NW NSW, a new 'bundle' for accumulation, is felt as a destructive force. It destroys pre-existing socio-ecological relations, displaces agri-industrial extractivism, and very clearly signals a process of 'accumulation by dispossession' (Harvey 2004). The new 'bundle' of socio-ecological relations centred on gas extraction is strongly resisted, and in the process the 'old' socio-ecological hierarchies are disrupted. New alliances between old antagonists emerge and gain a generative power, producing new visions of renewable development for the region.

The common denominator of climate crisis helps articulate this 'bundle' of social forces as a new movement bloc. Most centrally climate crisis transforms what would otherwise be a localised conflict into a global contest, relevant to all. The Santos project is literally and figuratively on the global frontier of fossil fuel expansion, as reflected in the large number of community speakers from outside of the immediate region. Climate magnifies existing issues and reorders priorities, forcing shared agendas into view. Climate is the key driver across virtually every dimension of the debate about the Narrabri CSG project, from Indigenous culture and water, farming and drought, wildfires and heat, issues of social inclusion and questions about a renewable economy, and even issues of social and political empowerment in the energy transition.

With this we can see how climate crisis creates new sets of social and political antagonisms, that cascade across disparate social fields and contexts, producing new possibilities in their wake. In key respects these concerns come into focus on shared material aspects of ecology, notably on water, as the basis for life. Indigenous cultures are re-valued and move to the centre of contestation; there is a reassessment of geology and environments, a questioning of social domination, a rethinking of economies and a transformed understanding of the political process. As such, contestation politicises social fields in new ways, linking social relations with ecology, and creating new forms of engagement and democratisation. What we are witnessing here is, arguably, a dramatic 'climatisation' of society that produces new ways of understanding our world and our place in it.

To return to the main theme, there are manifold lessons from this experience for the 'resource curse' debate. Across all the fields addressed – from Indigenous culture to geological and environmental impact, to economic displacement and socio-political dislocation – the message is clear. As demonstrated powerfully in the statements made at the Narrabri IPC hearings, there can be no coexistence with coal seam gas. What is lost is lost irrevocably and cannot be retrieved. The incommensurability of this challenge confronts 'resource management' and rejects the idea that coal seam gas could ever legitimately be defined as a 'resource'. In this sense, the concerns expressed by the opponents of the project point not to the 'curse' or 'benefit' of coal seam gas, but to its fundamental 'negation' as a 'resource'.

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