

DEAN B. CARSON, JEANIE GOVAN & DORIS A. CARSON

# Indigenous Experiences of the Mining Resource Cycle in Australia's Northern Territory

## Benefits, Burdens and Bridges?

---

**ABSTRACT** This paper proposes a model of how Indigenous communities may engage with the mining sector to better manage local development impacts and influence governance processes. The model uses a resource lifecycle perspective to identify the various development opportunities and challenges that remote Indigenous communities and stakeholders may face at different stages of the mining project. The model is applied to two case studies located in the Northern Territory of Australia (Gove Peninsula and Ngukurr) which involved different types and scales of mining and provided different opportunities for development and governance engagement for surrounding Indigenous communities. Both cases emphasise how the *benefits* and *burdens* associated with mining, as well as the *bridges* between Indigenous and outsider approaches to development and governance, can change very quickly due to the volatile nature of remote mining operations. There is thus a need for more flexible agreements and more dynamic relationships between

Indigenous, mining and other governance stakeholders that can be adjusted and renegotiated as the conditions for mining change. The final discussion reflects on how the model may be applied in the context mining governance and Indigenous stakeholder engagement in the Fennoscandian north.

---

KEYWORDS Indigenous communities, mining impacts, resource lifecycle, governance, remote

---

## Introduction

It is common for the academic literature to depict the relationship between Indigenous people and mining projects in developed nations in Australasia, North America and northern Europe as constituted by a series of conflicts (Gilberthorpe & Hilson 2016). These conflicts are typically centred on access to, and use of, land and impacts on the environment. There are also conflicts over access to economic benefits from mining, and the mechanisms by which Indigenous people can be engaged in planning and governing mining projects (Howlett 2010). In recent times, there has been a more optimistic turn in the literature, with claims that new systems for project planning provide better opportunities for Indigenous people to experience reduced long term negative impacts and increased benefits (Langton & Longbottom 2012; O'Faircheallaigh 2013). These new systems include improved Environmental Impact Assessment (EIA) regulation, land use agreements, mining company-Indigenous community agreements and the adoption of Corporate Social Responsibility (CSR) mandates by mining companies.

When compared to the Fennoscandian north, Australia has a long history of developing mechanisms for engaging Indigenous people in mining project planning and governance, at least in some parts of the country. In the mid-1960s, there was a strong push from Indigenous communities in the Northern Territory of Australia (see Fig. 1) to have more control over their traditional lands, and to be included in processes of regional development. By the mid-1970s, the Australian Government had developed a system of Indigenous Land Rights (again primarily in the Northern Territory) which returned large areas of land to traditional owners. Throughout the 1990s, Australian High Court decisions extended the concept of land rights throughout Australia, requiring provincial governments to reconsider their approaches to Indigenous territorial recognition and "Indigenous development." By the turn of the current century, legal agreements between Indigenous communities and mining companies had become commonplace, particularly in the more remote northern parts of Australia where Indigenous people comprise a large proportion of the resident population (Altman 2012).

Despite this history, and a growing body of literature produced during the latest “mining boom” in Australia in the early part of the twenty-first century, there is still no overarching framework or model of Indigenous engagement with the mining sector that could be used to critique and improve resource governance models. The purpose of this paper is to propose such a model, which might not only be useful in the Australian context but provide insights into potential governance strategies in other parts of the world. The model is based on two quite different case studies, although both located in the Northern Territory of Australia. The Gove Peninsula case study involves a long running (1971 to the present day) and large scale mining project which included (up until 2014) on-site refining, the construction of a “company town” on Indigenous land, a series of changes of ownership of the mine and refinery, and a lived experience of the changes in approaches to governance summarised above. The Ngukurr case study involves a very short (less than 10 years) and recent (2013–2014) period of small-scale mining development involving at least two different companies, a largely non-resident mining workforce and no on-site processing. Both cases involved a “crisis” point in 2014—the suspension of operation of the refinery in the Gove Peninsula and the shutting down of two mining operations near Ngukurr.

The paper argues that mining in both cases provided opportunities for benefits to Indigenous people, along with new burdens being placed on Indigenous communities, and “bridges” between Indigenous and outsider approaches to “development” and governance. These benefits, burdens, and bridges changed throughout the mining project cycle, suggesting a need to monitor and re-evaluate the impacts from mining on Indigenous communities on an ongoing basis. What emerges from the analysis is a picture of dynamic relationships between Indigenous and other stakeholders, made so in part by the vagaries of mining in remote or sparsely populated areas, but in part by the cumulative impact of benefits, burdens and bridges. The key lesson to emerge from the model is that point-in-time processes, such as EIAs or Indigenous mining agreements, are unlikely to be sufficient governance tools as the wants and needs of different actors sometimes change very quickly and in unexpected ways (Owen & Kemp 2013). More responsibility needs to be given to all parties (particularly Indigenous communities, mining companies, and government) to adapt to changing circumstances if more benefits are to be realised. While the paper draws primarily on the experiences of two particular cases in northern Australia, the final discussion considers the implications of the identified key lessons for mining governance and Indigenous engagement in the Fennoscandian north.

## Benefits, Burdens, Bridges and the Mining Resource Cycle

According to the literature, the potential benefits of mining for Indigenous people include access to jobs, provision of transport and other physical infrastructure, investment in education and training, support for cultural activities, the development of additional economic opportunities (tourism, art etc.), and direct financial gain arising from royalties or ownership agreements (Lawrence 2005; Brereton & Parmenter 2008; Buultjens *et al.* 2010). Benefits often accrue before mining commences, with investments in training centres and community infrastructure. As mining progresses, infrastructure and community support activities may continue, and employment and financial benefits begin to be realised. There has been very little discussion about what the residual benefits of mining may be once mining operations have ceased (White 2013), but presumably the legacy of physical infrastructure and a period of high income may provide a platform for continuing development in the community.

Empirical evidence of the extent to which benefits have actually been delivered in developed nations such as Australia, Canada, the United States, and the Fennoscandian north is somewhat limited (O’Faircheallaigh 2010). There are case study-type reports on employment schemes, and occasional acknowledgements of the role of mining company and government investment in related economic activities. A small number of studies have sought to compare overall economic status of Indigenous people in mining regions with non-mining regions, and the results of these have been mixed (Hajkowicz, Heyenga & Moffat 2011; Blackwell & Dollery 2014; Brereton & Parmenter 2008). Nevertheless, the search for benefits, and the potential for benefits arising from investments, be they short-term or long-term, is central to at least the public justification of policies relating to mining and Indigenous people in these countries.

The literature most commonly comments on “promised benefits”—those that are clearly articulated, either before mining commences, or when there is a renegotiation of mining-Indigenous relationships (O’Faircheallaigh 2010). Such renegotiation may be planned (aligning with terms of leases, for example), enforced (as a result of change in public policy, for example), or arise from some sort of crisis or substantial change in mining operations (an environmental incident, a change in ownership of the project). In addition, benefits that were not explicitly described in formal plans or agreements may be realised through informal arrangements often based on individual relationships, or through the discovery of unexpected ways of using infrastructure or resources. The responsibility for delivering benefits

rests not only with the mining company, but with government at various levels (who have their own commitments to support and govern the development), Indigenous communities themselves (responsible, for example, for identifying people for jobs or training places), and Indigenous organisations which may be headquartered within the community or distant to it. These latter are usually the recipients of royalties, the legal entities included in agreements, and the operators of companies which receive mining related benefits.

The most widely discussed burden of mining for Indigenous people is the forfeiture of access to, and use of, land. Even when mining occurs outside officially declared Indigenous land, environmental impacts are likely to be keenly felt by traditional owners (Coombes, Johnson & Howitt 2012). Changing the land use also interrupts traditional and culturally valued practices such as reindeer herding in the Fennoscandian north and bush food and other resource harvesting or ceremonial visits to country in Australia and other places (Koivurova *et al.* 2015; Herrmann *et al.* 2014). In the many cases where mining activities cease and there are insufficient arrangements for environmental rehabilitation, it can be local Indigenous people who take on the responsibility of agitating for rehabilitation to be done, or doing what they can themselves.

Indigenous communities living in close proximity to mining projects are, of course, not immune to the problems that arise from the presence of sometimes large numbers of new short and long-term residents with very different social and cultural backgrounds and demands. Mining workforces tend to be dominated by relatively young males, and this group may be particularly problematic when it comes to violence, substance abuse and interactions with local populations (Taylor & Carson 2014). On the other hand, while an enforced separation of “local” and “imported” populations might mitigate some of these burdens, it may also reduce the potential for particularly unplanned social and economic benefits that could arise from serendipitous contact between people.

A somewhat neglected burden for Indigenous people involved in mining project governance are the time and community costs associated with organising to participate in negotiations, to lobby outside of formal negotiation processes, and to manage the transfer of financial and other resources between stakeholders. Intra-community tensions may arise as different groups have different attitudes to the project, and different access to benefits and burdens. While it is tempting to ascribe to the view of Indigenous communities as homogenous and having clear internal power structures, this is often clearly not the case. Mining companies and governments have a history of “cherry picking” who they include as representatives of the In-

digenous community, creating local “haves and have nots” and damaging often fragile local social and cultural relations (Coronado & Fallon 2010). In this way, the royalty benefit of mining can be a burden, as is the case with employment benefits, where deciding who gets a job, how income from that job is used in the community, and how working environments might impact family and cultural relations, can be a cause of concern.

The concept of “bridges” is not as clearly identifiable in the literature as those of benefits and burdens. The concept is somewhat problematic because it could potentially be interpreted as a part of the continuing process of colonisation of Indigenous people, and the imposing of “mainstream” ways of “doing things” on Indigenous communities. What is meant by the concept, however, is the role that mining development might play in helping Indigenous communities, organisations, and individuals develop skills and secure access to resources that increase their capacity to engage in governance processes (Pickerill 2009; Howlett 2010). Ideally this would entail increased knowledge of the processes that are almost always developed external to the community, increased capacity to nonetheless influence these processes (influencing policy), and new strategies to align internal decision-making approaches with those demanded by the external processes. Engagement in mining governance, particularly if it occurs over a long period of time, can ideally promote cultural awareness (in multiple directions) and cultural safety. It should not be forgotten, however, that these bridges are unlikely to be provided uniformly, and their accessibility to some members of the community in preference to others can accentuate the intra-community burdens described above (Cleary 2014).

Broadly speaking, there may be benefits, burdens and bridges in three different phases of mining project development. During the pre-development phase, benefits and burdens are hypothesised by the various stakeholders, and processes of formal and informal negotiation are undertaken in an attempt to promote particular ways of managing benefits and burdens, to declare interests, and to document what various stakeholders intend to do to maximise benefits and minimise burdens. The second phase is the operational phase, where the realities of what can and cannot be delivered from formal processes of negotiation are realised, and where unanticipated benefits and burdens emerge. The final phase, which receives less attention in the literature, is the winding down and closure phase, where it is possible to conduct a stocktake of Indigenous experiences of the project, and imagine what continuing impacts there are likely to be.

Within this broad cycle are other periods of activity which may also be important. Pre-development includes exploration as well as project planning. The operational phase has periods of construction, process testing,

acceleration to maximum production, stabilisation and increased labour efficiencies. Winding down can be a short or long-term venture, with considerations of whether to abandon the project, suspend operations, or seek re-investment. Closure comes with a series of post-operational activities such as deconstruction of infrastructure, environmental rehabilitation, resource ownership arrangements, and compensations to local communities for loss of jobs and incomes. Each of these activities may be associated with changes in ownership of the project, the land, and the infrastructure, and changing relationships between companies, Indigenous organisations, communities and government. In examining benefits, burdens and bridges in the following two case studies from the remote Northern Territory of Australia, we will use the broad phases identified in the resource cycle literature (Clapp 1998; Bradbury & St-Martin 1983; Halseth 1999; Tonts 2010), as summarised by Carson *et al.* (2016) in their examination of demographic impacts of hydro-power development in northern Sweden. These phases include:

- Pre-development—including exploration and planning;
- Early period—including construction and initial extraction;
- Middle period—the main profitable period of operation;
- Decline—reduced profitability and re-planning; and
- Transition—various ways of suspending or ceasing operation and “constructive planning” for future use of the resource, the land, and community economic assets.

It should be noted that these phases do not need to be linear, and that individual projects do not need to include all phases. Nevertheless, a resource cycle perspective provides a useful framework for reviewing the benefits, burdens and bridges provided by mining to Indigenous communities at different stages of the mining projects, and one which allows for a more comprehensive, dynamic and long-term view than currently provided in the literature.

The two case studies are primarily based on secondary data, complemented by observations collected by the researchers during field visits between 2014 and 2016 and informal discussions held with local stakeholders at various community meetings. Secondary data sources involved historic and contemporary public documents containing information about the mining projects and Indigenous engagement in the case study areas, including academic publications, government reports and other grey literature, as well as articles and public debates published in the local media. These were sourced through Charles Darwin University’s library archives (and its Northern Territory special collection) and an online media database (Australian/New Zealand Reference Centre). Media and grey literature sources



are identified as MWx and referenced in the appendix. In addition, population data were drawn from the Australian census up to 2011 (Australian Bureau of Statistics 2017) to identify local demographic and socio-economic indicators. Data from the latest 2016 census were not available at the time of writing, meaning that local demographic and socio-economic impacts resulting from recent changes to the respective mining projects (for example, the closure of the alumina refinery in Nhulunbuy in 2014) could not be assessed in detail. The following case studies review the development of mining projects on Gove Peninsula and Ngukurr, with a focus on identifying the particular benefits, burdens or bridges for local Indigenous populations that have emerged at different stages of those projects.

## Introduction to the Cases

Fig. 1 shows the locations of the two case sites of Gove Peninsula and Ngukurr. In Australian terms, these sites are quite proximate (a few hundred kilometres apart), although there are no direct transport links between them. The sites are also similar because they are on what is now largely Indigenous owned land and what were once Aboriginal Reserves. The cases themselves are quite different, however, with the Gove Peninsula case involving a bauxite mining and alumina refining project dating back to the 1960s, and Ngukurr experiencing more recent iron ore and ilmenite projects involving minimal on-site processing. The Gove Peninsula project included the building of a large company town to house workers and others, while the Ngukurr projects have been much smaller-scale with largely non-resident workforces. Both cases have progressed through the various stages of the mining resource cycle, over a period of nearly 50 years for the Gove Peninsula and over a much shorter period of time for Ngukurr (starting in the 2010s). Comparison of the cases therefore provides some insights into how various characteristics of the project might impact on experiences of the resource cycle, even for Indigenous communities which are geographically proximate.

### *The Gove Peninsula Experience*

The Gove Peninsula (within the East Arnhem municipal area, see Fig. 1) is the traditional home of the Yolŋu people, and is now home to about 5,000 Indigenous and non-Indigenous people, over half of whom live in the mining town of Nhulunbuy. The Gove Peninsula is relatively isolated, with a commercial airport at Nhulunbuy, but otherwise no all-year transport access. The nearest major population centre is Darwin, the capital city of the Northern Territory, some 1,000 km to the west by (seasonal) road. Air transport links the region to Darwin and to Cairns (the regional centre of Far



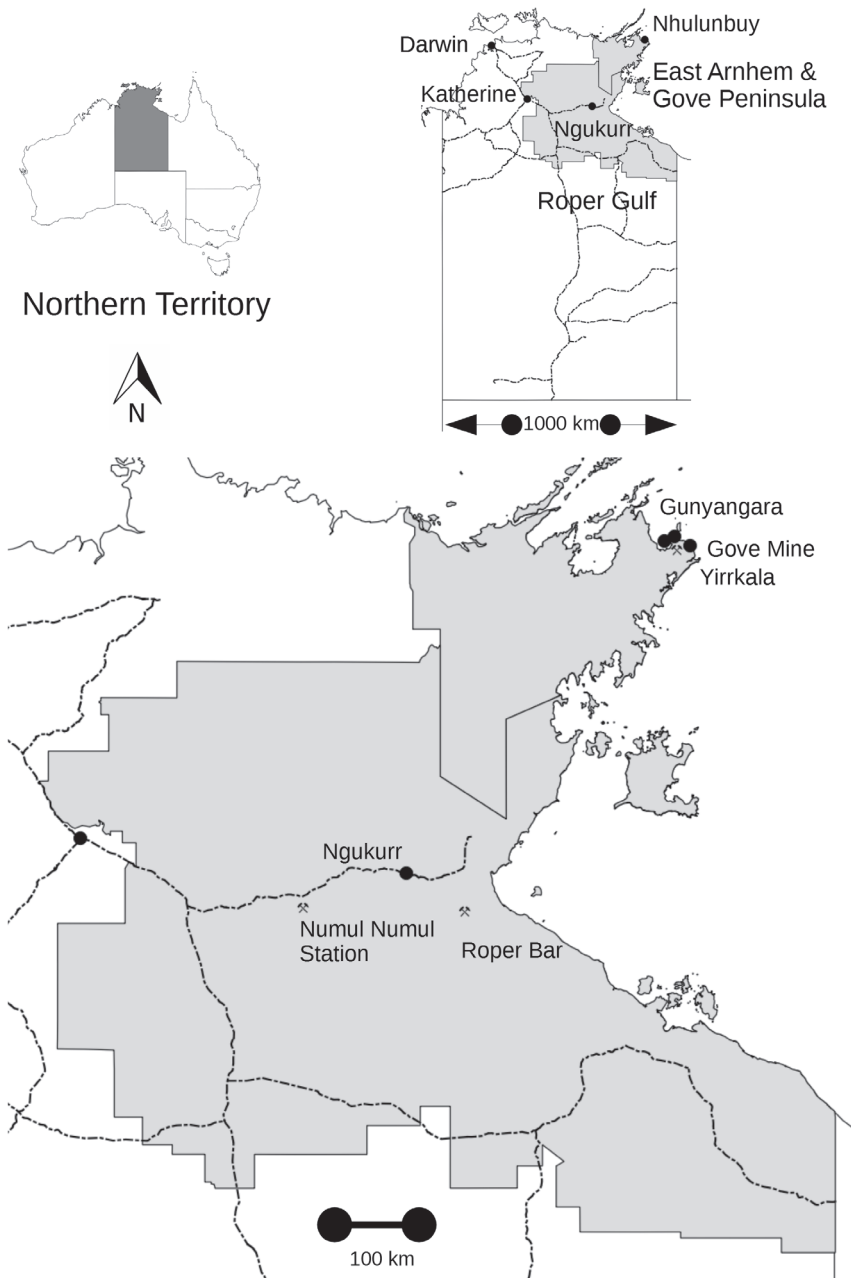


Fig. 1. Case study sites: Gove Peninsula and Ngukurr, Northern Territory (Australia).  
Source: created by authors.

North Queensland to the east). There is also a seaport at Nhulunbuy which is used all year.

In 1934, the Yirrkala Methodist mission was established about 15 km south of what would later become Nhulunbuy, and Indigenous people from the Gove Peninsula were encouraged to settle at the mission. In the mid-1970s, the mission was closed and the town was handed over to the local Indigenous community association (Morphy 2005). A short time later, one family from Yirrkala established the Gunyangara community some 30 km by road to the northwest. Yirrkala and Gunyangara remain the largest Indigenous communities on the Gove Peninsula, with Yirrkala home to about 850 people and Gunyangara home to about 150 people according to the 2011 Census (Australian Bureau of Statistics 2017).

The Gove Peninsula was a staging point for airforce activity during World War II, with a large airstrip serving as the focus of military activity. Mining exploration began shortly after the war, and in the mid-1960s, NABALCO (the North Australian Bauxite and Alumina Company) was formed by a consortium of Swiss and Australian companies to hold a mining lease for large parts of the Peninsula (Keen 2004; Pearson 2012). The lease conditions included the building of the town of Nhulunbuy near the airstrip, and a commitment to refine at least part of the bauxite on site. The town was built in the late 1960s, and mining and refining started in 1971, by which time the town had a population of about 4,000 residents (Australian Bureau of Statistics 2017).

The arrival of mining on the Gove Peninsula saw the Australian Government excise some 300 km<sup>2</sup> from the Aboriginal Reserve. In response, leaders of twelve Indigenous clans living in and around the Yirrkala Mission wrote a petition to the Australian Government, known as “the bark petitions,” protesting against the loss of land and the lack of consultation with the local people over the decisions to allow mining and to excise the land (Pearson 2012). The petitions argued that the loss of land was a threat to local livelihoods, and that the mining company would destroy the independence of the Yirrkala people (Casey 2011). The petitions did attract attention from an Australian Parliamentary Inquiry into the arrangements for mining on the Gove Peninsula, and preceded an Australian Supreme Court challenge to the right of the Government to excise the land (Pearson 2012). While the parliamentary inquiry recommended that Yolŋu people be compensated for the loss of land, no compensation was delivered. Nevertheless, this episode was a significant milestone in the journey to the original Aboriginal Land Rights Act that was passed in 1976 (Watson 2016).

The original Nhulunbuy mining lease made no allowance for royalties or other compensation to be made directly to Yolŋu people. After the Supreme Court action, however, it was decided that 10 per cent of the royalties

paid to the Australian Government should be given to the Yirrkala Dhanbul Association (Altman 1983). In addition, conditions in the lease relating to the building of Nhulunbuy as a “special purpose town”—which was not part of the system of local government used elsewhere in Australia (Pearson 2012)—included the requirement to build a hospital that would service the broader region, to provide access to the airstrip for commercial flights, and to provide housing and office accommodation for government employees who would largely be in the region for duties relating to governance of Indigenous people (Toon 1970; Lee 2014). The town also included a school which did not explicitly exclude Indigenous students but which, as indicated by a photograph of the student body in 1984, at least initially had few Indigenous students (MW1).

In 1976, the passing of the Australian Land Rights Act substantially changed the relationships between mining companies and Indigenous people in the Northern Territory (O’Faircheallaigh 2008; Altman 1983). The act formalised the paying of mining royalties to Indigenous land owners, to the newly formed Land Councils, and to the Northern Territory community more broadly. Exactly how royalties were to be distributed, and to whom, was not clear, and it could be argued that it has never been made clear. In the Gove Peninsula case, this lack of clarity meant that some Indigenous groups, which were better advised or more skilled in negotiating with government, were able to receive large shares of royalties, while other groups did not. The result has been long-term and ongoing conflicts between different Indigenous groups in the area (MW2).

An early prospectus about Nhulunbuy and the mining and refinery operations produced by NABALCO had a small section outlining intended relationships with local Indigenous people. No mention was made of jobs for Indigenous people, with the focus instead on the potential benefits of royalties (which, according to NABALCO, were being paid at twice the normal rate because of the positioning of the project within an Aboriginal Reserve) and the benefits that would accrue from Indigenous peoples’ increased engagement with industry and government. The report states:

The Gove Project [...] has speeded the emergence of men who are assuming the responsibilities of leadership through the Yirrkala Council [...]. In this way, as in many others, the Gove Project is helping in the development of Australia (NABALCO 1972: 23)

Indeed, certain families from the Gove Peninsula are today among the more prominent in Indigenous politics and social movements across Australia (Trudgen 2016).

While the passing of the Land Rights Act did not result in a renegotiation of the Nhulunbuy lease, the Act did provide a mechanism for Indigenous land owners to restrict access to land outside the lease area. In Nhulunbuy, this means that a permit is required even to access the beach located near the centre of town, and popular fishing, camping and other recreational sites further away (MW3).

Determining who can access what land or facilities has consequently long been a feature of the relationship between the mining company and Indigenous people on the Gove Peninsula. Periodically, attempts have been made to exclude Indigenous people (or at least to control access) from local recreational facilities such as “The Arnhem Club” social club and the Walkabout Hotel. These places are problematic in Indigenous politics, as they run counter to measures adopted by the Yirrkala and Gunyangara communities to prohibit alcohol in their towns. Relatively few Indigenous people, however, have moved to Nhulunbuy to live permanently (Carson & Carson 2014), and it is much more common to be taken to and from the Club by its “courtesy bus” or the Yirrkala “night patrol” (MW4, MW5).

The population of Nhulunbuy has varied over time according to demands for labour for construction and refurbishment projects at both the mine and the refinery. Peak population was over 5,000 people in 2006, while there were about 3,500 residents in 1986. In 2011, the population was about 4,000 people, and about 700 people directly employed at the mine or refinery, with perhaps as many as 300 more working as contractors to those operations. Government and social services (run by both government and independent agencies) employed around 300 people. There were about 250 residents identifying as Indigenous, which is a much lower proportion of the population than for the region as a whole (Australian Bureau of Statistics 2017).

At the same Census, 650 of the 850 people enumerated at Yirrkala, and 140 out of the 160 enumerated at Gunyangara were Indigenous. Virtually all employment was in the government and social services sectors. Historical population data for the two communities is not readily available, however, there were 650 people enumerated at Yirrkala at the 1976 Census, 550 in 1986, 500 in 1996 (with 380 at Gunyangara), and 700 in 2006 (with 230 at Gunyangara). Periodically, Census data suggest a handful of residents of Yirrkala or Gunyangara have been working in mining operations. The bulk of the mining workforce, however, operates on a fly-in/fly-out basis (MW6). Local residents were, until its closure in 2014, much more likely to be working in the refinery. The refinery also provided some jobs for Indigenous people, particularly as contractors. Indigenous people have also contracted for other services to Nhulunbuy town and its residents. At least some lo-

cal employment has therefore been stimulated by mining, and provides an alternative source of revenue for what would otherwise be an extremely economically isolated community (Carson & Carson 2014; Pearson & Daff 2013). Nevertheless, according to the 2011 Census, Yirrkala and Gunyangara had low workforce participation rates (and no people working in the mining sector), even when compared to other remote Indigenous communities.

The original Nhulunbuy lease expired in 2011, by which time Rio Tinto had taken ownership of Alcan, the company which had bought the mine and refinery from NABALCO in 2001. A new 42-year lease was negotiated between the company and the Northern Land Council, a statutory authority of the Australian Government charged with helping Indigenous communities acquire and manage land. The new lease had a more direct focus on company responsibilities relating to Indigenous people. Direct royalty payments in the order of AUD 15 million per year were included in the lease agreement, along with a commitment to continue the refinery operation (under certain conditions that were not disclosed). Increasing royalty payments over time have allowed the Gumatj Corporation (representing one of the Yolŋu clans) to invest in community development projects and local businesses both related to mining/refining, and in sectors such as arts, hospitality, forestry, farming, fishing and meat processing (Pearson & Helms 2013). The royalty agreement was not, however, without controversy, as another clan, represented by the Rirratjingu Aboriginal Corporation sued the Northern Land Council over what it felt was mistreatment in the distribution of royalties (MW2, MW7). The role of Land Councils as mediators of negotiations between mining companies and local Indigenous people is a challenging one given the complexity of Indigenous land ownership structures and intra- and inter-nation relationships (Blackwell 2012). Land Councils, like mining companies, are often accused of favouritism in selecting who they represent in these negotiations (MW8).

Less than three years after signing the new agreement, Rio Tinto announced the indefinite suspension of works at the refinery (despite the apparent conditions of the lease) (Carson & Carson 2014). Among the many direct and indirect jobs lost within the space of just a few months at the start of 2014 were those held by Indigenous contractors not just to the refinery, but to the town of Nhulunbuy more generally. It is estimated that half of the town's population had left by the middle of 2015, with more departures expected as local businesses struggled with a reduced customer base (MW9). Commercial air services were reduced dramatically almost immediately, and concerns continue to be raised about the future of the hospital, school and other public services. The Northern Territory Government initially committed to retaining its local workforce, but has since reneged

on that commitment. The future of royalty payments to Indigenous people remains unclear, even though the mine itself continues to operate (MW10). Rio Tinto made a one-off AUD 2 million payment (intended to be matched by both provincial and Australian governments, but ultimately not matched by the latter) to assist in transition of the local economy (MW11).

The abrupt decline in Rio Tinto's local activities was accompanied by some new developments particularly for the Gumatj Corporation. Rio Tinto agreed to support the establishment of a mining training centre, and to help the Corporation set up and operate a small mining company of its own. That company, Gulkula Mining, has been awarded exploration licenses for the region, and has begun exploration work. The intent is to decrease dependence on external companies for mining development, and enable Indigenous people to be involved in a wider range of jobs and governance responsibilities (MW12). Gumatj Corporation has also increased its investment in retail businesses in the town, taking over from departing previous owners (MW13).

At the same time, provincial and Australian government attention focused on the future of the town of Nhulunbuy. The Gove Taskforce did not include formal representation from Indigenous organisations, reflecting the long established role that Nhulunbuy has played in separating Indigenous from other residents in some ways. Initially, the Taskforce examined strategies such as developing tourism (although getting access to Rio Tinto's port facility for cruise ships and recreational boating was a problem), encouraging retirement migration, and increased agricultural and fishing activity. Rio Tinto promised to at least try to convert some of its fly-in/fly-out mining workforce to a residential workforce, to facilitate local residents flying in and out of operations elsewhere, and also handed over several hundred Nhulunbuy houses to the Northern Territory Government and "the local community" (Carson & Carson 2014). How these houses should be allocated and used is still a matter of debate (MW14, MW15). Ultimately, the Government did invest in a boarding school in Nhulunbuy which will allow remote dwelling Indigenous children to attend the high school. This investment perhaps flags some thinking about exploiting the infrastructure of Nhulunbuy to provide services to Indigenous communities throughout the broader region, but, of course, the idea of taking Indigenous children away from their home communities for "mainstream" education is not without controversy. By the time the Taskforce released its report in late 2014, the idea of Nhulunbuy as a regional service centre had become the first recommendation (MW16). The final report of the Taskforce is no longer available on the Northern Territory Government website.

In terms of the asset which has been at the centre of Indigenous-mining company relations since the late 1960s—the land—Rio Tinto continues

to hold the lease until 2053, and need not take any but the essential safety and “mothballing” action to rehabilitate the site or facilitate alternative land uses until that time (MW17).

### *The Ngukurr Experience*

Ngukurr community is located in the Roper River region at the bottom of southeast Arnhem Land in the Northern Territory (Fig. 1), approximately 320 km southeast from the major township of Katherine situated on the Stuart Highway. Access to Ngukurr is by (seasonal) road, chartered air services, and by boat following the Roper River. The region is the traditional home of about 21 different Indigenous clan groups (McRae-Williams 2008; Sandefur 1985), but Ngukurr itself is on the traditional land of the Ngalakan people.

The Roper River Mission was established in 1908 in response to concerns that hostility of the local Indigenous people was impeding attempts to establish a pastoral industry in the region (Costello 1930; Durack 1959), and that the safety of the Indigenous residents was at risk as a result. There may have been as many as 200 people spending at least part of their time at the Mission by 1910, although some people were seasonally absent, including for work on pastoral stations (McRae-Williams 2008; Harris 1990; Cole 1985). Flooding resulted in the mission being relocated to the current site of the Ngukurr community in the 1940s. Ngukurr was home to about 1,000 people according to the 2011 Census, and over 90 per cent of these people identified as Indigenous (Australian Bureau of Statistics 2017).

The Roper River Mission was handed over to the Northern Territory Welfare Branch (a division of government) in 1968, and thence to the local Indigenous community in the mid-1970s. The township was managed by the Yugul Mangi Aboriginal Corporation (as the Yugul Mangi Community Government Council) until 2003, and is now the major population centre within the Roper Gulf Regional Council. The Council is responsible for about a dozen towns inhabited mostly by Indigenous people, and a number of small settlements called “outstations” which are linked to these towns. Ngukurr has 11 outstations. The total population of the Roper Gulf Council area was about 6,000 in 2011. The Yugul Mangi Aboriginal Corporation was established in 2008 to play a central role in local business and enterprise development in Ngukurr and representing Ngukurr’s interests within the larger Council administration (MW18).

According to the 1976 Census, there were 250 people living in Ngukurr. This rose to 650 people in 1986, 900 people in 1996, and 1,000 people in 2006. At the 2011 Census, three residents of Ngukurr were identified as working in mining, out of a mining workforce of 50 (including 21 Indigenous people) in



the total Roper Gulf Region. The main industries of employment in Ngukurr were government and social services (about two thirds of the workforce), and retail trade (about 8 per cent of the workforce) (Australian Bureau of Statistics 2017).

Mining for gold was first attempted in the region in the 1860s, with varied results (MW19, MW20). Exploration around the turn of the twentieth century resulted in the Roper River Concession Syndicate Limited purchasing about 1,600 hectares of pastoral lease for its associated mining rights (MW21). There are no records about mineral production in this region during this period, but further exploration activities occurred in the 1920s (for oil) and in the 1950s and 1960s. No substantial mining activity arose from these ventures (Jones 1987).

Ilmenite (used as a pigment in paints and plastics) mining commenced on Numul Numul station (about 80 km from Ngukurr) in 2010, with Australian Ilmenite Resources (AIR) leasing mining land from the pastoral station which in turn is leased from the Namul Namul Aboriginal Corporation representing the traditional owners. Ilmenite mining continues, and AIR has made a series of proposals for expanding existing operations and constructing two new mines in the region. The mine is expected to operate for at least 20 years (MW23).

In 2012, two iron ore mining projects were announced in the region. The Sherwin Creek Iron Ore project and the Roper Bar Iron Ore project were each located about 50 km from Ngukurr, with the former also on a sub-leased cattle station. The projects were managed by Western Desert Resources (WDR). Both projects ceased operations within a year of commencing (MW24).

The historical attitudes and responses of Indigenous people to mining are less well documented for Ngukurr than for the Gove Peninsula. There are records of Indigenous protest against European exploration of the region dating back to the late nineteenth century (Cole 1969; Cole 1985; Harris 1990), but whether there were specific protests against mining or mineral exploration is unknown. In more recent times, there are no recorded protests against either the ilmenite or iron ore projects. Local commentary when the mines were proposed was largely optimistic, and focused on the benefits that might come in the form of local employment (MW25).

Unlike on the Gove Peninsula, there was no plan to construct a residential facility in the Ngukurr region for any of the recent mining projects. Rather, workers have commuted from Katherine or further afield, and have stayed in temporary accommodation while at the mine site. The Ngukurr region mines have also made few specific commitments to the local Indigenous communities. The AIR *Social and Cultural Aspects Report* refers only

in broad terms to intentions to help train local people for work on the mine, and to use local contractors when it is possible to do so (VDM Consulting 2012). Other commitments were to maintain roads used by mining vehicles, and to assist in the identification and management of areas of historical and cultural interest. In the documentary series *Mining the Roper*, the Australian Broadcasting Corporation (national public media) identified four major impact themes arising from their interviews with local Indigenous leaders, mining company representatives and pastoral station managers (MW26). They were: jobs for local people, maintenance of roads (also MW27), preservation of sacred sites, and co-existence with the small but important tourism sector in the region.

The establishment of the mines in the Roper River region provided opportunities outlined by the Chief Executive Officer of the Yugul Mangi Development Aboriginal Corporation: “the project will bring jobs, it’ll bring wealth and it’ll bring opportunity” (Northern Territory Environment Protection Authority 2012: 36) and enthusiastic support from a traditional owner and a member of the Roper Gulf Shire Council that “they [community] know about the project and they want to know when it’s going to start” (Northern Territory Environment Protection Authority 2012: 36).

Consultations on the mine with neighbouring communities of Numbulwar, Borroloola, Minyerri and the Ngukurr community overall were positive about development of the mine and associated opportunity: “groups were commercially oriented and it was indicated throughout engagements that they were preparing for the benefits that WDR could provide” (Northern Territory Environment Protection Authority 2012: 36).

The Sherwin Iron Ore project in particular was praised for providing jobs to local people during its construction phase. There were claims of over 500 jobs associated with the project in total, but it is not known how many of these jobs were filled by local people (MW28). The collapse of the iron ore projects was nonetheless associated with numbers of local people losing their jobs, and being unable to complete training courses that the companies had been providing (MW29).

Likewise, mining activity was seen as a justification for fast-tracking plans to upgrade the road from Katherine to Ngukurr. Mining trucks were blamed for causing substantial damage to the road, and making it difficult to use for other purposes. With the collapse of the iron ore projects, local people fear that the road will no longer be a priority for the Northern Territory Government. Road use conflicts were one of the perceived threats to the local tourism sector, along with the visual impact of mining activity. On the other hand, the presence of mine workers in the region was seen as pro-

viding opportunities for tourism, hospitality and retail businesses to expand their markets (MW26).

Negotiating mining leases in the Ngukurr case has been quite complex, with a variety of pre-existing lease and sub-lease arrangements including Indigenous land under the Land Rights Act, pastoral leases either private or sub-leased from Indigenous owners, and other freehold land (MW26). As with the 2011 lease renewal for Gove, the Northern Land Council had the responsibility for negotiating arrangements where Indigenous land was involved. Lease negotiations included royalties for local Indigenous groups. The arrangements for the ilmenite project are not known, but the Northern Land Council claims that local Indigenous groups have not received any royalties owed from the iron ore projects (MW30).

While the ilmenite project continues (albeit still in very early stages of development), the sense from commentary emanating from the Ngukurr community is that future mining proposals will be met with greater scepticism (MW31). There may also be broader implications for approaches to community and economic development. The loss of royalties and jobs certainly impacts the resources that are available to explore other economic activities and to invest in community oriented projects. From a land management point of view, local people are worried about rehabilitation of mined country and who will be funding for cleaning up the environment since the company has gone into administration.

The anger, frustration and disappointment felt by Aboriginal traditional owners with the closing of the iron ore projects was expressed at the Northern Land Council full council meeting in June 2015 (MW32). One of the areas of concern was the lack of consultation surrounding the end of the project, despite what was perceived to be good consultation at the start of the project. With the mining companies in liquidation, Indigenous stakeholders have to deal with new people and organisations (the administrators, for example) who are not part of the shared history. Like with the Gove experience, the formal outcomes of negotiations (leases, EIAs and community impact statements) have turned out to be ill-suited to assisting in managing decline and transition.

## Implications for Resource Governance in the Fennoscandian North

In the remote Australian contexts considered here, economic development opportunities are scarce, and the costs of maintaining even the most basic of infrastructure are often beyond local communities, and even provincial and national governments. Indigenous people are a majority of the popu-

lation, and their primary assets are the land and their deep knowledge of, and long association with it. Mining is one potential mechanism for development, with (at least temporary) economic benefits from royalties, employment, and investment in transport and other infrastructure. Providing mining ventures with land, however, essentially locks it off from other potential uses, and brings risks that long-term damage may be done to environmentally and culturally sensitive sites. Even detailed and considered negotiations may not be able to prevent this, as the vagaries of the mining resource cycle and the approaches to governing decline and transition stages in particular mean that, as demonstrated in our cases, the lived reality is likely to be different from what was initially negotiated. In this context, a “bridge” to stronger Indigenous capacity to engage in negotiations and governance may not always emerge.

Table 1 summarises some of the key observations from the two case examples, showing how benefits, burdens and bridges can emerge at different stages of the mining resource cycle. Even as projects decline and close, it is possible to derive benefits, such as the multi-million dollar transition fund provided by Rio Tinto in the Gove Peninsula case. The table shows how Indigenous experiences of the resource cycle can be complex and even contradictory, as well as dynamic. It is unlikely that any static planning mechanisms drawn up at single points in time (often at the pre-development stage), such as environmental impacts statements or Indigenous-mining agreements, could effectively foresee or cater for this dynamism and complexity.

Table 1. Potential benefits, burdens and bridges arising at different stages of the mining resource cycle.

	Benefit	Burden	Bridge
Pre-development	Improvements to roads and other infrastructure	Ceding land	Developing skills for complex negotiations and knowledge of legal and regulatory processes
Early period	Construction jobs	Increased traffic and disruptions to daily life	Developing local (often contracting) businesses
Middle period	Royalties	Restrictions on access to sacred sites	Maturation of community leadership organisations
Decline	Company-community partnerships for and economic development projects	Uncertainty about economic future	Opportunity for constructive planning
Transition	Hand-over of (some) infrastructure	Loss of jobs and royalties	Establishing desired conditions for future projects

Before considering how these cases might relate to conditions in the Fennoscandian north, there needs to be consideration of how likely they are to be repeated even in Australia. The Gove Peninsula case comes from an era when mining projects were mostly large-scale, and remote mining meant building new residential towns. Many such towns exist in Australia, and some, like Nhulunbuy, are facing periods of transition made perhaps more difficult by their normalised place in the landscape. In more contemporary large-scale remote mining, it is much more common to build only temporary settlements which are principally for the purpose of temporary housing of fly-in/fly-out workers (Storey 2016). While these settlements provide less infrastructure (and probably employment) benefits for regional inhabitants, they also create less dependency on the mining company and fewer long-term transition challenges. Nevertheless, some of the fundamentals of the Gove experience of a large mining project are likely to be repeated. These include the centrality of royalties, provision of training and jobs, and support for alternative economic and social activities (like art centres, for example) as key mining company commitments. They also include, however, the probability of changes in ownership and mining project governance, over-estimates of economic benefit and under-estimates of the costs of rehabilitation.

The Ngukurr case provides an alternative in the form of smaller-scale development that involves much more direct local relationships. Relationship building through direct negotiation and consultation might result in a more positive view of mining from local communities. It might also result in better, or at least broader, economic connections between the mining project and the community as reflected in the apparently large number of “real jobs” provided to Ngukurr residents. However, the case also emphasises the inherent fragility of small-scale development, particularly early in the mining resource cycle. Whether it would better suit Indigenous interests to promote smaller-scale over larger-scale projects remains a debatable question.

In the Fennoscandian north, Indigenous (Sami) people are rarely the majority, and their rights are not as clearly defined as for Indigenous people in remote Australia. There is far less of a separation of Sami from other communities, and the systems which enable Sami reindeer herders to access land are not as definitive as those which allow fishing, hunting and cultural access to land in Australia (Ween & Lien 2012). There is also perhaps greater tension within the Sami community as a result of competition between reindeer herders and other Sami for rights and recognition (Kuokkanen 2011). These tensions are also apparent in Australia, as was seen with the conflicts over rights to access royalty payments in the Gove Peninsula case. Nevertheless, the legal opportunities for Sami people to make their claims

and state their cases are perhaps more reflective of the “bark petitions” era in remote Australia than the contemporary era of land rights and mandated negotiation processes.

A key learning from this Australian history are that negotiated agreements may have limited currency when circumstances change (for the mining company) and serve more to commit Indigenous communities than mining companies. There needs to be attention paid to how Indigenous-mining agreements may be made both more flexible (such that they can be altered more easily over time) and more binding on companies. The current debate about bonds and levies and other mechanisms for ensuring that costs of environmental rehabilitation are borne by the mining company is one example of this sort of thinking. Another learning is that the decline and transition phase is as significant as the early phase as a milestone in Indigenous-mining company relations, despite receiving very little attention in plans and agreements. Very rarely is there an opportunity to plan for the end (or suspension or major downgrade) of a project much before “D-Day” arrives. Much relies, of course, on open and transparent communication between those “in the know” in the mining company and the various levels of government (who are often not on-site) and local communities. Mechanisms to encourage such open communication need to be developed.

The temptation in examining Indigenous experience of mining in any context is to over-emphasise the negative aspects. It could be argued that the Gove Peninsula and Ngukurr experiences have both finished poorly for the local communities, but the legacies of benefits and even bridges also need to be recognised. Even in Ngukurr, the community and the Northern Land Council could use the disappointment and frustration to become better prepared to manage future negotiations. Mining is almost certain to continue to be promoted by government as a positive economic development opportunity for remote communities, and preventing new projects is unlikely to be a feasible ambition in more than a few isolated cases. Indigenous communities can, however, be more proactive in making internal policy decisions about their approaches to mining governance—do they want close or distant relationships with the company? Do they prefer smaller or larger-scale development? What do they expect to be done (and by whom) if the project ends or stalls unexpectedly? What are the plans and ambitions when it comes ultimately to having to transition from mining to something else? The Gove Peninsula and Ngukurr cases have presented some insights into these issues. The cases have further demonstrated that a longitudinal resource cycle perspective Indigenous-mining relationships can provide a useful lens to identify the various benefits, burdens and bridges arising at different stages of mining development. Applying the proposed model to

other remote environments and Indigenous community case studies in the future will help in refining the model and developing a better understanding of how local experiences may vary across different countries, institutional settings and Indigenous contexts.

## ACKNOWLEDGMENTS

---

The research has been supported by the Social Sciences and Humanities Research Council of Canada Mining Encounters and Indigenous Sustainable Livelihoods Partnership Project.

## REFERENCES

---

- Altman, J.C. (1983). *The Payment of Mining Royalties to Aborigines in the Northern Territory*, Canberra: Centre for Economic Policy Research.
- Altman, J.C. (2012). "Indigenous rights, mining corporations, and the Australian state," in *The Politics of Resource Extraction. Indigenous Peoples, Multinational Corporations, and the State*, eds. S. Sawyer & T. Gomez, London: Palgrave Macmillan, pp. 46–74.
- Australian Bureau of Statistics (2017). "Census home," [www.abs.gov.au/websitedbs/census-home.nsf/home/data](http://www.abs.gov.au/websitedbs/census-home.nsf/home/data); access date 22 January 2017.
- Blackwell, B.D. (2012). "Local and regional government in remote and unincorporated Australia. Sui Generis?," *Public Policy*, 7:1, pp. 23–46.
- Blackwell, B.D. & Dollery, B. (2014). "The impact of mining expenditure on remote communities in Australia. The ranger uranium mine and the Tanami gold mine in the Northern Territory," *Australasian Journal of Regional Studies*, 20:1, pp. 68–97.
- Bradbury, J. & St-Martin, I. (1983). "Winding down in a Quebec mining town. A case study of Schefferville," *The Canadian Geographer*, 27:2, pp. 128–144.
- Brereton, D. & Parmenter, J. (2008). "Indigenous employment in the Australian mining industry," *Journal of Energy & Natural Resources Law*, 26:1, pp. 66–90.
- Buultjens, J., Brereton, D., Memmott, P., Reser, J., Thomson, L., & O'Rourke, T. (2010). "The mining sector and indigenous tourism development in Weipa, Queensland," *Tourism Management*, 31:5, pp. 597–606.
- Carson, D.A. & Carson, D.B. (2014). "Mobilities and path dependence. Challenges for tourism and 'attractive' industry development in a remote company town," *Scandinavian Journal of Hospitality and Tourism*, 14:4, pp. 460–479.
- Carson, D.B., Carson, D.A., Nordin, G., & Sköld, P. (2016). "Lessons from the Arctic past. The resource cycle, hydro energy development, and the human geography of Jokkmokk, Sweden," *Energy Research & Social Science*, 16, pp. 13–24.
- Casey, M. (2011). "Performing for Aboriginal life and culture. Aboriginal theatre and Ngurrumilmarrmiriyu," *Australasian Drama Studies*, 59, pp. 53–68.
- Clapp, R.A. (1998). "The resource cycle in forestry and fishing," *The Canadian Geographer*, 42:2, pp. 129–144.
- Cleary, P. (2014). "Native title contestation in Western Australia's Pilbara region," *International Journal of Crime, Justice and Social Democracy*, 3:3, pp. 132–148.



- Cole, K. (1969). *A Short History of the C.M.S. Roper River Mission, 1908–1969*, Melbourne: Missionary Historical Publications Trust.
- Cole, K. (1985). *From Mission to Church. The CMS Mission to the Aborigines of Arnhem Land 1908–1985*, Bendigo: Keith Cole Publications.
- Coomes, B., Johnson, J.T., & Howitt, R. (2012). "Indigenous geographies. Mere resource conflicts? The complexities in Indigenous land and environmental claims," *Progress in Human Geography*, 36:6, pp. 810–821.
- Coronado, G. & Fallon, W. (2010). "Giving with one hand. On the mining sector's treatment of indigenous stakeholders in the name of CSR," *International Journal of Sociology and Social Policy*, 30:11–12, pp. 666–682.
- Costello, M.M.J. (1930). *Life of John Costello. Being the Adventures of a Pioneer, Pastoralist and Explorer in Queensland and the Northern Territory*, Sydney: Dymock's Book Arcade.
- Durack, M. (1959). *Kings in Grass Castles*, London: Constable.
- Gilberthorpe, E. & Hilson, G. (2016). "Introduction," in *Natural Resource Extraction and Indigenous Livelihoods. Development Challenges in an Era of Globalization*, eds. E. Gilberthorpe & G. Hilson, Oxon: Routledge, pp. 1–11.
- Hajkovicz, S.A., Heyenga, S., & Moffat, K. (2011). "The relationship between mining and socio-economic well being in Australia's regions," *Resources Policy*, 36:1, pp. 30–38.
- Halseth, G. (1999). "'We came for the work.' Situating employment migration in B.C.'s small resource-based communities," *The Canadian Geographer*, 43:4, pp. 363–381.
- Harris, J. (1990). *One Blood. 200 Years of Aboriginal Encounter with Christianity. A Story of Hope*, Sydney: Albatross.
- Herrmann, T. M., Sandström, P., Granqvist, K., D'Astous, N., Vannar, J., Asselin, H., Saganash, N., Mameamskum, J., Guanish, G., Loon, J., & Cuciurean, R. (2014). "Effects of mining on reindeer/caribou populations and indigenous livelihoods. Community-based monitoring by Sami reindeer herders in Sweden and First Nations in Canada," *The Polar Journal*, 4:1, pp. 28–51.
- Howlett, C. (2010). "Indigenous agency and mineral development. A cautionary note," *Studies in Political Economy*, 85:1, pp. 99–123.
- Jones, T. G. (1987). *Pegging the Northern Territory. The History of Mining in the Northern Territory of Australia, 1873–1946*, Darwin: Northern Territory Government Printer.
- Keen, I. (2004). "The old air force road. History, myth and mining in north-east Arnhem Land," in *Mining and Indigenous Lifeworlds in Australia and Papua New Guinea*, eds. A. Rumsey & J. Weiner, Adelaide: Crawford House, pp. 157–181.
- Koivurova, T., Masloboev, V., Hossain, K., Nygaard, V., Petrètei, A. & Vinogradova, S. (2015). "Legal protection of Sami traditional livelihoods from the adverse impacts of mining. A comparison of the level of protection enjoyed by Sami in their four home states," *Arctic Review*, 6:1, pp. 11–51.
- Kuokkanen, R. (2011). "Self-determination and Indigenous women. 'Whose voice is it we hear in the Sámi Parliament?'," *International Journal on Minority and Group Rights*, 18:1, pp. 39–62.
- Langton, M. & Longbottom, J. (eds.) (2012). *Community Futures, Legal Architecture. Foundations for Indigenous Peoples in the Global Mining Boom*, Oxon: Routledge.
- Lawrence, R. (2005). "Governing Warlpiri subjects. Indigenous employment and training programs in the central Australian mining industry," *Geographical Research*, 43:1, pp. 40–48.
- Lee, D. (2014). "The development of bauxite at Gove, 1955–1975," *Journal of Australasian Mining History*, 12, pp. 131–147.

- McRae-Williams, E. (2008). "Understanding 'Work' in Ngukurr a Remote Australian Aboriginal Community," diss., Charles Darwin University.
- Morphy, H. (2005). "Mutual conversion? The Methodist Church and the Yolŋu, with particular reference to Yirrkala," *Humanities Research*, 12:1, pp. 41–53.
- NABALCO (1972). *The Gove Project*, Sydney: NABALCO.
- Northern Territory Environment Protection Authority (2012). "Rowland Western Desert Resources Roper Bar Iron Ore Project Consultation Report. Environmental Impact Statement Public Notification Period," [https://ntepa.nt.gov.au/\\_\\_data/assets/pdf\\_file/0010/290476/APPENDIX-F-ROWLANDS-Consultation-Report.pdf](https://ntepa.nt.gov.au/__data/assets/pdf_file/0010/290476/APPENDIX-F-ROWLANDS-Consultation-Report.pdf); access date 30 January 2017.
- O'Faircheallaigh, C. (2008). "Negotiating cultural heritage? Aboriginal–mining company agreements in Australia," *Development and Change*, 39:1, pp. 25–51.
- O'Faircheallaigh, C. (2010). "Aboriginal–mining company contractual agreements in Australia and Canada. Implications for political autonomy and community development," *Canadian Journal of Development Studies*, 30:1–2, pp. 69–86.
- O'Faircheallaigh, C. (2013). "Community development agreements in the mining industry. An emerging global phenomenon," *Community Development*, 44:2, pp. 222–238.
- Owen, J. R. & Kemp, D. (2013). "Social licence and mining. A critical perspective," *Resources Policy*, 38:1, pp. 29–35.
- Pearson, C. A. (2012). "Australian councils unelected by the citizens in an indigenous setting. The case of Nhulunbuy in the Northern Territory," *Australian Journal of Public Administration*, 71:3, pp. 278–289.
- Pearson, C.A. & Daff, S. (2013). "Indigenous workforce participation at a mining operation in northern Australia," *Australian Bulletin of Labour*, 39:1, pp. 42–63.
- Pearson, C.A. & Helms, K. (2013). "Indigenous social entrepreneurship. The Gumatj clan enterprise in East Arnhem Land," *The Journal of Entrepreneurship*, 22:1, pp. 43–70.
- Pickerill, J. (2009). "Finding common ground? Spaces of dialogue and the negotiation of Indigenous interests in environmental campaigns in Australia," *Geoforum*, 40:1, pp. 66–79.
- Sandefur, J. (1985). "Aspects of the socio-political history of Ngukurr (Roper River) and its effect on language change," *Aboriginal History*, 9, pp. 205–219.
- Storey, K. (2016). "The evolution of commute work in the resource sectors in Canada and Australia," *The Extractive Industries and Society*, 3:3, pp. 584–593.
- Taylor, A.J. & Carson, D.B. (2014). "It's raining men in Darwin. Gendered effects from the construction of major oil and gas projects," *Journal of Rural and Community Development*, 9:1, pp. 24–40.
- Tonts, M. (2010). "Labour market dynamics in resource dependent regions. An examination of the Western Australian Goldfields," *Geographical Research*, 48:2, pp. 148–165.
- Toon, J. (1970). "Planning a new town Gove/Nhulunbuy," *Royal Australian Planning Institute Journal*, 8:4, pp. 115–127.
- Trudgen, K. (2016). "No bungawa, no big boss," *Arena Magazine (Fitzroy, Vic)*, 140, pp. 34–35.
- VDM Consulting (2012). "Australian Ilmenite Resources. Social and cultural aspects report 2012," [https://ntepa.nt.gov.au/\\_\\_data/assets/pdf\\_file/0007/290518/Appendix-D-Social-and-Cultural-Aspects-Report.pdf](https://ntepa.nt.gov.au/__data/assets/pdf_file/0007/290518/Appendix-D-Social-and-Cultural-Aspects-Report.pdf); access date 15 March 2016.
- Watson, V. (2016). "Bringing economics back into assimilation. The select committee of inquiry into the grievances of the Yirrkala Aborigines 1963," *Australian Journal of Politics & History*, 62:3, pp. 388–403.

- Ween, G.B. & Lien, M. (2012). "Decolonialization in the Arctic? Nature practices and land rights in the Norwegian High North," *Journal of Rural and Community Development*, 7:1, pp. 93–109.
- White, R. (2013). "Resource extraction leaves something behind. Environmental justice and mining," *International Journal for Crime, Justice and Social Democracy*, 2:1, pp. 50–64.

## APPENDIX: MEDIA AND WEB SOURCES

---

- MW1: <https://web.ntschoools.net/w/nhs/Alumni/Home.aspx>
- MW2: <http://www.abc.net.au/news/2015-04-21/rirratjingu-gumatj-clans-battle-for-arnhem-mine-royalties/6410584>
- MW3: <http://www.ncl.net.au/welcome-to-nhulunbuy/leases-and-permits/>
- MW4: <http://www.smh.com.au/articles/2003/06/04/1054700277287.html>
- MW5: <http://www.theage.com.au/articles/2003/10/30/1067233235852.html>
- MW6: <http://www.abc.net.au/news/2017-02-17/should-the-top-end-revive-traditional-mining-towns/8209294>
- MW7: <http://nit.com.au/rirratjingu-vow-fight-nlc-royalties-claim/>
- MW8: <http://www.abc.net.au/news/2017-03-07/land-dispute-sends-nt-qld-gas-pipeline-back-to-negotiating-table/8331776>
- MW9: <http://www.abc.net.au/news/2015-01-28/last-of-nhulunbuy-refinery-workers-leaving-town/6050702>
- MW10: <https://www.crikey.com.au/2014/02/13/rio-tintos-gove-plant-never-delivered-on-indigenous-hopes/>
- MW11: <http://www.ntnews.com.au/news/northern-territory/rio-moves-to-offer-another-50-million-to-support-community/news-story/b859d3134dc57cc9ff-297c2f19d46f3e>
- MW12: <https://www.theguardian.com/australia-news/2016/aug/17/indigenous-owned-company-approved-to-open-bauxite-mine-in-arnhem-land>
- MW13: <http://www.abc.net.au/news/2015-07-31/indigenous-businesses-filling-void-after-rio-tinto-exit-in-nt/6661930>
- MW14: <http://www.abc.net.au/news/2014-11-21/rio-tinto-and-nt-government-nhulunbuy-initiative-announced/5909778>
- MW15: <https://www.theguardian.com/australia-news/2014/nov/21/empty-homes-in-nhulunbuy-reserved-for-business-despite-housing-crisis>
- MW16: <http://newsroom.nt.gov.au/mediaRelease/9737>
- MW17: <http://www.landmanager.org.au/mining-and-wildlife-conservation>
- MW18: <https://yugulmangi.com/>
- MW19: *Yorke's Peninsula Advertiser and Miners' News* 1872
- MW20: *Hamilton Spectator* 1872
- MW21: *The Australasian* 1905
- MW22: *The Register* 1921
- MW23: [https://ntepa.nt.gov.au/\\_\\_data/assets/pdf\\_file/0006/290508/Appendix-G-Water-Management-Plan.pdf](https://ntepa.nt.gov.au/__data/assets/pdf_file/0006/290508/Appendix-G-Water-Management-Plan.pdf)
- MW24: <http://www.abc.net.au/news/2014-07-11/nt-iron-ore-industry-suffers/5590672>
- MW25: <http://www.abc.net.au/site-archive/rural/content/2012/s3514360.htm>
- MW26: <http://www.abc.net.au/news/2013-09-16/mining-the-roper-region/4950464>

- MW27: <http://www.katherinetimes.com.au/story/1139129/better-roads-key-to-ngukurrs-advancement/>
- MW28: [https://parliament.nt.gov.au/\\_\\_data/assets/pdf\\_file/0005/355379/answer2044520-2012.04.2016.pdf](https://parliament.nt.gov.au/__data/assets/pdf_file/0005/355379/answer2044520-2012.04.2016.pdf)
- MW29: <http://www.nlc.org.au/media-releases/article/to-aspirations-ruined-after-mine-closures>
- MW30: <http://www.theaustralian.com.au/business/mining-energy/roper-bar-mine-windup-native-titleholders-seek-royalty-payments/news-story/0c-78282fe4388c328db28fea98539072>
- MW31: <http://www.abc.net.au/news/2015-06-18/mine-failures-take-shine-off-northern-development-roper-river/6557232>
- MW32: <https://www.australianmining.com.au/news/traditional-owners-bitter-about-failed-nt-mines/>

## AUTHORS

---

*Dean Carson* is professor in demography and growth planning within the Northern Institute of Charles Darwin University (Australia), and a guest researcher at the Arctic Research Centre at Umeå University and the Sweden Centre for Rural Medicine (GMC) Storuman (Sweden). He is a human geographer interested in understanding demographic, social and economic change of small settlements in sparsely populated areas.

[dean.carson@umu.se](mailto:dean.carson@umu.se)

*Jeanie Govan* is a PhD candidate at the Northern Institute of Charles Darwin University (Australia). Her PhD examines the effects of the Northern Territory land administration system on local development and informed decision-making in remote Aboriginal communities. She also works as Community Champion Development Liaison Officer within the Department of the Chief Minister, Northern Territory Government.

[jeanie.govan@yahoo.com](mailto:jeanie.govan@yahoo.com)

*Doris Carson* is a researcher at the Department of Geography and Economic History, Umeå University (Sweden), and an affiliated researcher with the Arctic Research Centre at Umeå University and the Northern Institute at Charles Darwin University (Australia). Her research focuses broadly on population mobilities in remote and sparsely populated areas and their impacts on socio-economic development in small communities.

[doris.carson@umu.se](mailto:doris.carson@umu.se)