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Introduction to the Special Issue of JRCD

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1.0 Introduction

Welcome to this special issue which is dedicated to the topical case of community impacts from large scale oil and gas developments in rural and remote parts of developed nations. The idea for this volume, perhaps surprisingly on initial consideration, came immediately after I had delivered a presentation on research into the homeless population of Darwin. Unsurprisingly, the idea came from my research partner on that topic, Professor Dean Carson. While homelessness might seem about as distant as possible from the topic at hand, on reflection, the conceptual links are entirely viable. We are privileged to have been working with a cohort of academics and practitioners from around the globe who are engaged in understanding links between population change, the economy and wellbeing in isolated areas of developed nations. All of us share a concern for the marginalising effects of major oil and gas projects which, under the right conditions, have the potential to grow the size of the 'have nots' (as my colleagues and I described them in Taylor, 2011) population who have little chance of cashing in on the 'boom' times. While it is not a secret that post-industrial capitalism has created income and other dipartites within our back yards, in small and isolated communities the scale of disparities is often overwhelming, not least because of the size of projects relative to the population.

The objective of this issue is to draw from contemporary research in the 'norths' (loosely defined) around the globe in a number of fields including demography, economics, sociology, anthropology, entrepreneurial studies, and political science. We aim to provide readers with research-based information on the variety of factors which play out at local levels to determine the net benefits from large oil and gas developments for communities located at or near such developments. As a collective, we were interested in and motivated by community impacts in order to provide a resource for governments and industry as they consider and pursue future large ventures.

The spark for this issue came from the inception of an immense (ca. $AU34 billion) LNG plant now under construction in the mangrove swamps surrounding Darwin's Harbour (Darwin is a city of 130,000 residents in the far north of Australia). An almost unbelievable sequence of events preceding the construction

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of the Darwin plant, which you can read about in Taylor and Carson's contribution to this issue, were strongly suggestive of industry, government and other stakeholders, catching a wave to perpetual 'boom times' of incomparable proportions; demonstrated not least in the nomenclature around the final investment decision which secured the plant for Darwin (Australian Broadcasting Commission). The immediate speculative impact on median house prices and the sheer scale of the plant (as Australia's most expensive ever private sector funded project), led a small team of researchers to ponder the potential wider demographic and social impacts. We scoured existing literature and found little in the way of contemporary research on social issues related to oil and gas projects for communities like Darwin.

2.0 Boomtowns: Then and Now

The inception of socially orientated research on local impacts from oil and gas projects in rural or remote parts of developed nations is traced to the Western United States during the 1970s and 1980s. During that time a number of research initiatives articulated commonalities in social consequences for small communities. These led to the development of the well known 'Boomtown Impact Models' (Gilmore, 1976; Jacquet, 2009) which, broadly speaking, proposed that communities become overwhelmed by the scale of projects and particularly construction worker arrivals and their impacts on community amenity, security and lifestyle.

The boomtowns and associated literature documented a sequence of 'events' and attitudinal changes at the local level, collectively labelled as the 'Boomtown Syndrome' (Jacquet, 2009). The Syndrome is characterised by an initial period of community euphoria as a result of the articulated and anticipated economic benefits. Once construction commences, large influxes of non-resident workers, mostly male, with accompanying social impacts on services and infrastructure, lead to attitudinal changes and friction. Recent studies on the Russian Northern oil and gas peripheries of Vorkuta and Novy Urengoy, for example, highlighted the contradicting simultaneity of enthusiasm and the fear amongst local populations (Nuykina, 2013, Eilmsteiner-Saxinger, 2011; 2013). Locals there were at the same time enthusiastic about gaining the prestigious status of a 'resource frontier' town, and fearful of social disorder, prostitution, littering in public places and salary competition.

Meanwhile, the investment and worker schedules associated with modern oil and gas extraction and processing facilities are heavily skewed towards the construction phase. This translates to a concentrated and rapid growth in the local economy and population, often on a scale unimagined by locals. Conversely, finalisation of construction and the shift to operations signals a deflation in economic benefits and a substantial draw-down of workers. Taylor and Carson's paper on the construction of the Darwin plant demonstrates such temporal concentration with a ratio of around 16 construction workers for each operational worker anticipated for the Darwin LNG plant which is the topic of that study. The boomtown literature emphasises the importance of managing the construction 'wind-down' to avoid a 'bust' cycle for locals.

In spite of commonalities in the events associated with large oil and gas projects, Gilmore' and his 'boomtown' sociological contemporaries have attracted much derision for a lack of quantitative and theoretical rigour, and for their limited coverage on longer term economic and other benefits for communities. Nevertheless, these models continue to be seen as the most accurate representation of what transpires with the scale and diffusion of impacts dependent on starting

conditions and variations in techniques for managing impacts. But a swathe of technologic developments and new workforce systems for oil and gas extraction, processing and transportation have rolled-out since the days of the boomtown studies. These bring us to question whether and why such models continue to represent authentic outcomes for communities. Quite appropriately then, we open this issue with Jacquet and Kay's piece addressing precisely this question, and much more. Their manuscript provides a good overview of the complexities facing project stakeholders - chiefly industry, government and communities themselves - in attempting to maximise benefits and minimise negative consequences from oil and gas led development. As they explain, in doing so each must grapple with issues of rurality and isolation, spatial and temporal concentration, local control, economics and corporate behaviour.

3.0 Oil and Gas in Peripheral Areas of Developed Nations

Our primary geographical focus on communities and lands in the 'norths' or peripheries of developed nations is deliberate. Substantial oil and gas resources are located in these areas and their underlying demographic, environmental and economic characteristics lend them to potential and realised human, economic and natural impacts. Historically, settlements in what might be described as sparsely populated areas of developed nations have been subject to large scale external influences. The relative scale of externally conceived and enacted developments has exaggerated impacts from developmental policies, projects and schemes, whether in relation to Indigenous affairs or economic growth (Taylor et al., 2011). Nevertheless, and despite a picture of overall sparseness in terms of human occupation and infrastructure, within some of these areas concentrations of populations and investments, or, as Eikeland has labelled them in his contribution to this issue, 'growth poles', have emerged. In that paper, Eikeland documents the role of the "Snow White" Barents Sea gas field in the development of the northern Norwegian city of Hammerfest as a growth pole. He highlights opportunities and future challenges for the growth pole model under circumstances of finite resources.

Other papers in this issue offer contestation to the 'boom and bust' undertones found in most of the social sciences literature on this topic. In their manuscript about Peace River in British Columbia (Canada), Ryser and colleagues employ the notion of continuous 'regional waves' of development as representing ongoing opportunities for local economies and jobs. The tenet is that politics and planning should act in a state of continuous readiness for these waves. Meanwhile, Chapman and colleagues use the example of the rapid resource growth town of Onslow in Western Australia to identify ways in which policy makers and planners might be more prepared and adaptive towards meeting issues 'on the ground' as a the result of rapid population growth: "Perhaps what is surprising though is that the lessons of these previous experiences have not been learned, and policy and planning systems still seem unable to cope with rapid development."

4.0 The Human Side of Oil and Gas Ventures

A further and prominent theme of research in this field are the tensions arising from the human interactions around oil and gas developments, primarily between local residents and non-resident workers, but also within worker's families and the workforce more generally. Invariably, large oil and gas ventures cannot be supplied with sufficient numbers and skills from local sources. Consequently, various models

for obtaining and housing non-resident workers are enacted, including from a distance (and usually from larger population centres), by air (Fly-in-Fly-Out), rail (Rail-in-Rail-Out) or road (Drive-in-Drive-Out). An alternative is to house workers locally in workers' camps near to the project site. Often a mix of these, along with some engagement of local workers is deployed.

Regardless of the model of labour sourcing, workers are generally on higher incomes, are known to exacerbate negative social issues, and may not embed themselves well into local communities. In contrast to much of the 'imported' workforce, most locals are restricted to low-level blue collar jobs due to a lack of qualifications. Workers' camps are one way of housing large construction workforces and these generally provide good services, accommodation and recreation facilities which are of a higher standard than facilities in adjacent settlements (Eilmsteiner-Saxinger, 2011). Although vocational training programs and stipends may be established to help locals engage in the project workforce (like the 'Impact Benefit Agreements' in Canada), they often commence too far into the project to benefit locals. In this issue, both the paper led by Öfner and the one from Ensign et al. offer meaningful insights on resident-non-resident tensions and their effects on communities. The former documents the importance of social mobility as a motivator for people from small communities in the Ural Mountains regions of Russia for long distance commuting to oil and gas job opportunities. The latter examine the concept of social cohesion in the north of Canada and especially the influence of oil and gas development on Aboriginal populations residing there.

5.0 Politics and Persuasions

The papers in this issue are from across the social science disciplines and, as a final demonstration, Hansen's political science orientated manuscript discusses the legitimacy of democratic decision making in Greenland in relation to extractive industries under various political regimes; from colonial condition to Home Rule and present day Self Rule. With Greenland undertaking strategic assessments about the extent and timing of resource extraction which should be permitted from its lands and seas, his paper traces political pangs about the interplay between governance, economic and geo-political issues for a nation at the precipice of significant resource led development. The opportunities created by Greenland's resource endowment, and which are being expanded by climate change opening up new areas for exploration and extraction, have motivated the Greenlandic nation to review and reflect on its national identity in the face of modernity. Hansen highlights the tensions for local communities who express a desire for modernity as well as continued engagement in the subsistence economy and the preservation of that nation's outstanding ecology and landscape. These pressures are playing out in an environment where a logjam of multi-nationals are 'knocking on the door' with mega-project proposals.

Politics, then, cannot be separated from the topic of this special issue. But Greenland seems to be doing something different by withholding wholesale approval for mega-projects to maintain its cultural, anthropological and sociological roots; not to mention its magnificent natural environment. Ultimately this edition aims not only to document past and current issues, but to act as a resource for communities and nations, like Greenland, where policy makers are contemplating the approval of oil and gas led development projects on a grand scale. Perhaps then, after the dust is settled on this special issue, Greenland will be featured in 'Phase Three' of the

boomtown literature. Hopefully the experience of that nation will provide encouraging and learned examples of communities and a nation who have successfully facilitated positive outcomes from oil and gas led development with attributions to local communities being the foundation.

6.0 Acknowledgements

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