THE UNIVERSITY OF QUEENSLAND

AUSTRALIA

Towards best practice jobs decision-making: institutionalising fuller consideration of the social context in resource projects

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A thesis submitted for the degree of Doctor of Philosophy at

The University of Queensland in 2016

Sustainable Minerals Institute

Abstract

Towards best practice jobs decision-making: institutionalising fuller consideration of the social context in resource projects

A cost-effective, skilled and productive workforce is necessary for the competitive delivery of large-scale mining and oil and gas resource sector projects with labour representing 20 to 40 percent of the capital and operating cost. Companies therefore put considerable planning into jobs decision-making during the project design and approvals phases to optimise the workforce model. Less is known, however, about how consideration of the social context informs this process, especially in developing economies where the imperative for job creation is most pressing. As used here, the term 'social context' refers to the location of the resource project and associated infrastructure and the social, cultural, economic, and political characteristics of the nearby localities and regions.

The thesis addresses the following question: what weighting is currently given to the social context in jobs decision-making for large-scale resource projects and why and how should resource companies institutionalise its fuller consideration? The study uses a grounded theory methodology, drawing on analysis of data from semi-structured interviews and a case study of a large-scale gas project in Papua New Guinea. The research culminates in a series of propositions, informed by institutional theory that provides new insights on why companies should give fuller consideration to the social context in jobs decision-making. The propositions connect jobs decision-making and the social context to the project business case, the regulatory approval process, and the attainment of a 'social licence to operate'.

Analysis of the interview data confirms that jobs decision-making is mostly seen by companies as a technical process. The embedding of personnel with social expertise in jobs decision-making processes is often dependent on the relationship with the project team. This situation can constrain how companies consider the social context. Executives increasingly recognise the need for improved practice, but it continues to be difficult to integrate this expectation into project delivery. Being able to demonstrate a favourable business case is typically the priority for companies, followed by meeting project financier and regulatory requirements. Local and community expectations are next in importance. The research indicates that in the absence of regulatory requirements, and where companies

have assessed that conflict is unlikely to impact on the project, there will be less emphasis placed on meeting local and community expectations.

The five interconnected themes of *business factors, communities of interest, socio-economic considerations, service delivery enablers, and broad-based development* define how the social context can impact on and inform jobs decision-making. Feedback from interviewees and a case study of the Papua New Guinea Liquefied Natural Gas Project confirms the practical relevance of these themes, especially in a third world, developing economy context. The research also identifies that the social impact assessment (SIA) is not an appropriate mechanism for the more commercially-sensitive thematic analysis required to draw out these issues to inform jobs decision-making. Social analysis should be separate from the SIA and excluded from public documentation in order to provide the maximum potential for the social context to guide jobs decision-making.

The thesis concludes that fuller consideration of the social context in jobs decision-making through the alignment of internal cultural-cognitive, normative and regulative elements will result in better company and community outcomes and a greater capacity to demonstrate a mutual enduring benefit ('shared value'). A 'Towards Best Practice' jobs decision-making tool shows how companies can institutionalise fuller consideration of the social context in practice by strengthening internal leadership and business processes.

Declaration by author

This thesis is composed of my original work and contains no material previously published or written by another person except where due reference has been made in the text. I have clearly stated the contribution by others to jointly-authored works that I have included in my thesis.

I have clearly stated the contribution of others to my thesis as a whole, including statistical assistance, survey design, data analysis, significant technical procedures, professional editorial advice, and any other original research work used or reported in my thesis. The content of my thesis is the result of work I have carried out since the commencement of my research higher degree candidature and does not include a substantial part of work that has been submitted to qualify for the award of any other degree or diploma in any university or other tertiary institution. I have clearly stated which parts of my thesis, if any, have been submitted to qualify for another award.

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Publications during candidature

No publications.

Publications included in this thesis

No publications included.

Contributions by others to the thesis

No contributions by others.

Statement of parts of the thesis submitted to qualify for the award of another degree

None.

Acknowledgements

For my husband, Tony

The pursuit of a *degree of Doctor of Philosophy* would not have been possible without the love and support of my husband and soul mate, Tony Martin. In our family, he took on the role of husband, father, provider and carer, freeing me to study full-time while also working. I dedicate this thesis to Tony.

For my children, Jack and Sophie

My children are too young to appreciate the family sacrifices made to attain this degree, but they have witnessed my commitment and effort to achieve it. I hope that in the future, they too pursue their passion in life with persistence and determination, for doing so is a very satisfying thing.

To my academic supervisors from the University of Queensland

I thank my academic supervisors, Emeritus Professor David Brereton (principal supervisor), Centre for Social Responsibility in Mining (CSRM) and Dr David Wadley, Senior Lecturer Human Geography (supporting supervisor). David Brereton gave me the academic freedom to explore and address the research problem in my way while being there to support me when requested, an approach that suits my learning style. David Wadley provided me with guidance on how to structure and design the research problem with academic integrity. I could not have completed this thesis without the support of both supervisors.

To the interviewees who provided me with richness of context

I am grateful to the interviewees who provided honest insights and shared their knowledge on the large-scale project decision-making environment.

To the other University of Queensland staff that provided advice along the way

Associate Professor John Steen from the Business School assisted me to better connect with the institutional theory research agenda as well as providing constructive peer review of my thesis during two milestones. John also connected me with Professor Alf Jorgen Sandberg, who generously shared his wisdom on how to structure a thesis research design and methodology. Thanks, must also go to Dr Glen Corder, Principal Research Fellow at CSRM, who has always made himself available to chair my milestone review sessions and has, therefore, seen my development through to the completion of this thesis.

Other acknowledgements

Clearly Edited provided high-level editing assistance in the finalisation of this study.

Keywords

jobs, employment, institutional theory, large-scale project, communities, social context, shared value, social licence to operate, corporate social responsibility, resource sector

Australian and New Zealand Standard Research Classifications (ANZSRC)

ANZSRC code: 160801, Applied Sociology, Program Evaluation and Social Impact Assessment, 50%

ANZSRC code: 150399, Business and Management not elsewhere classified (Management), 25%

ANZSRC code: 140202, Economic Development and Growth, 25%

Fields of Research (FoR) Classification

FoR code: 1608, Sociology, 50%

FoR code: 1503, Business and Management, 25%

FoR code: 1402, Applied Economics, 25%

Contents

List of abbreviations

ABS	Australian Bureau of Statistics
ADB	Asian Development Bank
AWPA	Australian Workforce and Productivity Agency
BMA	BHP Billiton Mitsubishi Alliance
CEO	Chief Executive Officers
CFMEU	Construction Forestry Mining and Energy Union
CSR	Corporate social responsibility
CSRM	Centre for Social Responsibility in Mining
DFI	Development finance institution
EHL	Esso Highlands Limited
EIS	Environmental Impact Statement
EPC	Engineering, procurement, and construction
EPCM	Engineering, procurement, and construction management
ESG	Environmental, social, and governance
FDI	Foreign direct investment
FIFO	Fly-in fly-out
GDP	Gross domestic product
HR(M)	Human resource (management)
HSEC	Health, safety, environment, and community
ICMM	International Council on Mining and Metals
IETED	Indigenous employment, training and enterprise development
IFC	International Finance Corporation
IIED	International Institute for Environment Development
ILO	International Labour Organization
IPIECA	Global oil and gas industry association for environmental and social issues
JLSS	Journal of Law and Social Sciences
KPI	Key performance indicators
MNC	Multi-national corporation
NGO	Non-government organisations
OECD	Organisation for Economic Cooperation and Development
PMBOK	Project management body of knowledge
PNG	Papua New Guinea
PNG LNG	Papua New Guinea Liquefied Natural Gas Project

SDG	Sustainable development goal
SIA	Social impact assessment
STD	Sexually transmitted disease
UNDP	United Nations Development Programme
UNGA	United Nations General Assembly
UNRISD	United Nations Research Institute for Social Development
VBR	Village-based recruitment representatives
WiSER	Women in Social and Economic Research

1 Introduction

Access to a cost-effective, skilled and productive labour pool is of critical importance for the competitive delivery and operation of large-scale mining and oil and gas resource projects. For the purposes of this study, large-scale resource projects are those with a capital investment of greater than one billion or that otherwise attract a high level of public and political interest due to the substantial potential impacts on local communities and/or national budgets (Capka 2004; Eweje, Turner and Müller 2012; Flyvbjerg, Bruzelius and Rothengatter 2003; Miller and Lessard 2000; Van Marrewijk et al. 2008)[1]. Typically, these projects have a 25 year or greater operational life, are complex to deliver, and are in locations with long-term strategic resource exploitation opportunities (Eweje, Turner and Müller 2012). Labour costs are a significant project expense that can range from 20 to 40 percent of the total project and operating budget in mining (World Bank 2011, p. 54). The demand for workers can also result in cost peaks during construction, as recently evidenced during the oil and gas boom in Australia where labour rose to 60 percent of the project value (EnergyQuest 2014; Songhurst 2014). Collective bargaining, country inflationary pressures, and low levels of labour productivity in some country settings contribute to the rising cost of labour. Companies therefore put considerable planning into jobs decision-making during the project design and approvals phases to optimise the workforce model. Less is known, however, about how consideration of the social context, those political, economic, social and cultural conditions unique to the project location informs this process, especially in developing economies where the imperative for jobs is most pressing.

The design of the workforce model during the project design and approvals phase appears to emphasise technical matters that provide access to workers, optimise labour use, reduce costs, provide greater flexibility, and give companies greater control over their workforces. The substitution of technology and automation for unskilled workers, while potentially politically sensitive, is an emerging trend that can improve project cost and productivity competitiveness over time by decreasing the cost of labour. These matters make jobs decision-making of strategic technical importance for large-scale resource projects.

[1] Literature relating to project decision-making and large-scale projects uses the term mega-project interchangeably particularly for projects broader than the resource sector such as infrastructure. References to mega-projects have been changed to ‘large-scale’ with learning applicable to this project.

Jobs are also an issue of major importance for local and regional communities in resource-rich countries. African and Asian developing resource economies, as an example, require 600 million new jobs over the next 15 years to address an unemployment and underemployment crisis (World Bank 2013b). At the same time, USD 3 trillion in potential new resource growth provides the promise of jobs and a better quality of life (Dobbs et al. 2013, p. 13)[2]. Across developed economies, communities witness an increase in non-resident workforce models, obtaining fewer jobs benefits at the local level. Indigenous remote communities continue to express concern about high levels of unemployment even when situated near resource operations. Communities and the government generally want companies to place more emphasis on understanding their needs and providing higher levels of local jobs. The lack of requisite resource sector workforce skills and capabilities at the local community level can, however, severely compromise the ability of communities to capitalise on employment opportunities. Also, the creation of new jobs can at times have unintended adverse impacts on communities, for example by contributing to local price and wage inflation, exacerbating gender inequality, and fuelling tensions among different community groups.

There is considerable debate, both in political discourse and the academic literature, over whether the resource sector can effectively contribute to long-term regional development through jobs. The sector is a small employer compared with other more labour-intensive areas like agriculture and services industries. The inevitable 'boom-bust' cycle of resource projects can also create significant instability and social impact in communities. Booms can lead to rapid population influx and be a drain on services and infrastructure. Conversely, downturns can create high levels of unemployment and negatively impact on small businesses. Positive examples from the nineteenth century and early to mid-twentieth century show that the sector has been historically at the centre of regional growth for developed resource regions in Norway, Canada, the United States, Australia, and Chile (Cappelen and Mjøset 2009; Radetzki 1982; Sachs and Warner 1995). Strong backward and forward sectoral linkages from employment and the demand for small business services and infrastructure provision enabled these regions and countries to capitalise on the sector. The situation in developing countries, especially oil and gas countries in Sub-Saharan Africa, by comparison, largely differed; where the lack of the above pre-existing governance

[2] The estimate reflects 'boom thinking' rather than the current market downturn.

conditions limited the ability of communities to gain enduring benefit during this period (Aissaoui 2001).

The 1950s and 1960s, and even more so the 1980s and 2000s, saw significant growth and global reform for both developed and developing resource-producing countries, driven by neoliberal reforms, globalisation, and technology. Free trade agreements led to the rewriting of mining codes and the easing of market restrictions, providing a conducive environment for attracting foreign direct investment (Jenkins 2005). Neoliberalism prompted a retreat from proactive regional policy, planning, and expenditure by governments in areas of economic development, infrastructure provision and spatial planning (Hardy et al. 1995). At the same time, resource projects became huge, complex, and capital-intensive operations, catering to a world market (Canel, Idemudia and North 2010). This growth occurred in a highly competitive and contested political and business environment with companies scrambling to secure access to resources to meet forecast market demand.

Neoliberalisation increased the investment attractiveness of resource economies and reduced the level of risk but also contributed to the sector becoming more vulnerable to societal expectations (Campbell 2003; Maconachie and Hilson 2013). As technology use increased, it resulted in a significant drop in the demand for labour (Eklund 2015). Companies could mostly source unskilled labour from the area but not the highly specialised technical skills required to operate complex equipment (Radetzki 1982). Many host communities have experienced rapid and massive change associated with the growth of the sector. A complex and shifting mix of both positive (new jobs and linkages) and negative social impacts (population influx, increased conflict and potentially also the inability to secure skilled jobs at the local level) has ensued.

1.1 External stakeholders with an interest in jobs

Historically and to the present day, local and regional communities and governments have considered the increased availability of jobs as one of the main benefits of resource projects. The expectation of community stakeholders of obtaining preferential access to new jobs has the potential to link company and community interests (i.e., a company's requirement for labour and the community's desire for local jobs). However, when projects do not meet these expectations, or the possible negative social impacts from jobs decisions are not addressed, jobs can become a source of significant conflict among the same parties. Conflict over

access to jobs can materially impact on the project's capital cost and schedule and across the lifecycle. Jobs conflict can contribute to prolonged delays in attaining project approvals, prescriptive government conditions, and in the extreme, to the loss of licences. Governments, in turn, have demonstrated a willingness to respond to societal pressures and concerns by putting in place and strengthening local content and participation regulations. These regulations, globally, are becoming more prescriptive and politicised and underpinned by broader resource nationalism agendas. Developed economy western governments are placing pressure on third world resource economies to emphasise broad-based development and to implement policies and governance mechanisms to reduce the likelihood of the resource curse. Western international aid programs support this intent. Large-scale resource projects and company jobs decisions can unintentionally become embroiled, and in turn, be both positively and negatively impacted by these larger debates and development expectations.

Project financiers are increasingly recognising the risks associated with the costs of conflict and regulatory compliance in project financing models as well as requiring developers to adhere to a variety of environmental, social, and governance (ESG) performance standards and guidelines. Development finance institution (DFI) requirements like those of the International Finance Corporation (IFC) can include employment participation indicators for local communities, indigenous, disadvantaged groups and women (Massa 2013). Export Credit Agencies, another project financier class, generally provide funds on the proviso that the project purchases a substantial number of jobs and goods and services from the lender country. Addressing these various external funding requirements adds yet another element of complexity for jobs decision-making.

Local, national and international activists, including civil society, non-government organisations (NGOs), religious organisations, academics, unions, student bodies, ethnic groups, and investors exert pressure on the resource sector to be more responsive to societal expectations. (Luning 2012). It is becoming more commonplace for stakeholders within these groups to participate in broader activism where there is alignment with their primary or underlying interest. Access to local jobs and a call for companies to shift to a more development-oriented approach focused on poverty reduction is a priority of aligned activist action (Fox 2004).

1.2 Internal stakeholders and jobs

The concept of corporate social responsibility (CSR) has emerged in line with changing government economic policy and stakeholder expectations. CSR is the broad notion that "companies should accompany the pursuit of profit with good citizenship within a wider society" (Sadler and Lloyd 2009, p. 613). Resource company executives have embraced this term linking it to the need for the industry to gain a 'social licence to operate' and to manage social issues and risks better as part of a broader emphasis on sustainable development. However, embedding this imperative across and within all the organisational levels and functions involved in project delivery has proven to be a constant struggle. Diverse individual stakeholders have a role in approving, designing, and delivering projects from owners, joint venture partners, project hubs, engineering, procurement and construction providers (EPCs), product groups, assets, functions, and project teams. The structures in place can be especially complex for oil and gas projects, with different entities often responsible for the planning, development and implementation of the various components. For example: upstream (i.e, getting the oil and gas out of the ground); midstream (e.g., gathering, storing and transporting the crude oil, natural gas, natural gas liquids and sulphur); and downstream (e.g., refining and processing the crude oil and gas for the consumer market, the associated transportation truck, rail, pipeline and marine networks, retail gas stations and natural gas distribution companies).

Each stakeholder involved in the process brings their experiences, cultures, disciplinary backgrounds, and key performance indicators (KPIs) to the fore in the design and delivery of projects. Achieving alignment of these different stakeholders, and getting them to appreciate the importance of the social dimension can be extremely challenging. At the same time, failure to adequately consider the social context during the project design and approvals phase can severely erode long-term strategic project value (Eweje, Turner and Müller 2012).

In summary, it is in a resource company's best interests to strengthen the institutionalisation of CSR in jobs decision-making by giving greater consideration to the social context. Jobs are important for businesses and for communities and are a key aspect of strategic project value.

1.3 Theoretical concepts

The above sections highlight the broad range of external and internal stakeholders involved in the institutional field for large-scale project jobs decision-making. Each of these stakeholders have expectations as to how companies should consider the social context in jobs decision-making. Given the focus on understanding institutions and motivations in practice, institutional theory provides a theoretical starting point to assist in framing this study (Strauss and Corbin 1998, p. 12). Institutional theory "examines the role of social influence and pressures for social conformity in shaping organisations' actions" (Oliver 1997, p. 698). The theory recognises that an organisation's "social behaviour and associated resources are anchored in rule systems and cultural schema" (Scott 2008a, p. 3) as a basis for attaining organisational legitimacy (Palthe 2014). According to the theory, the regulatory environment incorporates rule setting, policies, and monitoring and sanctioning activities. Normative elements emphasise social obligation as embedded, prescriptive, and obligatory work norms, habits, and ethics. Cultural-cognitive elements focus on shared values, beliefs, assumptions, understanding, and framing to attain meaning.

Institutional theory is a source of valuable insights about how companies embed CSR and the consideration of the social context in jobs decision-making within a project environment. Application of the theory can provide guidance on how companies reconcile internal economic performance objectives (where jobs decision-making is situated) with the expectations of local communities for access to jobs. Over the last few years, there has been a growing call from institutional theorists for a more critical assessment of specific CSR activities in daily organisational practice (Banerjee 2008, p. 167; Devinney 2009). The connection between jobs decision-making and the social context has not previously been studied using institutional theory.

Other important concepts that connect the social and business contexts are 'shared value' and 'social licence to operate'. Porter and Kramer (2011) advocate the principle of shared value through "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates" (p. 6). Fuller consideration of the social context and the integration with the value chain and competitive context during the project design and approvals phases can support the leveraging of company resources and capabilities to both benefit society and the organisation to demonstrate 'shared value' (Porter and Kramer 2006,

p. 89). Consistent consideration of issues, benefits, and shared value underpinned by an understanding of stakeholder needs can contribute to organisational legitimacy and the attainment by companies of a 'social licence to operate' (Bustamante 2011).

1.4 Key terms

For this study, the term 'jobs decision-making' encompasses decisions about the types of workforce roles (skilled, semi-skilled, and unskilled) and numbers required during the project lifecycle. It also includes the sourcing of labour, workforce transport, accommodation and other infrastructure arrangements, skills and training requirements, and the economic costs of these decisions. 'Local and regional communities' (the social context) refers to the immediate locality of a community (and its culture, customs, and socio-economic and political conditions) through to the broader regional, national, and potentially cross-national area, depending on the project footprint. The primary focus of this research is on the local community and (direct) regional social context, acknowledging the variability and uniqueness of this location for each project. The extent to which operational changes become embedded in the industry, as evidenced by individual company behaviour, is referred to as 'institutionalisation' (Haberberg et al. 2010). Fuller consideration of the social context for this study, refers to the assessment of shared value, CSR, and social licence to operate matters in jobs decision-making. The merging of these concepts draws together benefits, issues, needs, risks, stakeholders, legitimacy, economic and social imperatives, and trade-offs.

1.5 The research gap

There is a dearth of published research on how and why resource companies make jobs decisions and the incorporation and the weighting of the social context in these decisions. Research does identify that a focus on project strategy requires more emphasis by executives on the societal and economic aspects of the options under study and business case during the design and approvals phase, and less emphasis on technology and management issues (Samset 2013). Businesses can, however, focus on the attainment of short-term financial performance objectives, ignoring the broader factors influencing longer-term success (such as political, regulatory and economic drivers, and the social context). There is broad agreement in current research that the best time to focus on strategic project imperatives, including social performance objectives, is as early as possible in the design

and approvals phases. Researchers and project decision-makers acknowledge this approach as likely to save money in the long term (Samset 2013, p. 9).

To date research has not identified how resource companies consider, balance, or trade-off external and internal strategic and operating imperatives and stakeholders' views in jobs decision-making during the design and approvals phase. Likewise, existing research has not illuminated how companies consider the social context within these deliberations or the role of the social impact assessment (SIA) during the project approvals process in supporting decision-making. Unless legislation or project lenders require it, the social context may not receive the same level of concerted practical attention during the project design and approvals phases as the technical jobs decision-making aspects.

The present research project is topical and undertaken at a time when more resource companies are recognising the strategic imperative to give greater initial up-front consideration to the social context and external pressures from society are demanding this approach. Businesses can, however, be uncertain how to respond in practice, particularly in third world conflict-prone locations where locals have high expectations of access to jobs but governments lack effective policies, capacity and governance mechanisms to deliver on their commitments and to monitor project compliance. This research project seeks to understand the weighting currently applied to the social context in jobs decision-making and why and how companies should institutionalise its fuller consideration connected to stakeholder needs and the optimisation of project and community shared value.

1.6 Research question

The overarching research question and sub-questions are:

What weighting is currently given to the social context in jobs decision-making for large-scale resource projects and why and how should resource companies institutionalise its fuller consideration?

- What influence does the social context exert on jobs decision-making compared to other drivers, and how has this changed over time?
- Why should resource companies give fuller consideration to the social context in jobs decision-making?

- How can internal company processes be configured to enable fuller consideration of the social context in jobs decision-making?

1.7 Aim and tasks

The primary aim is to answer the research question in a manner consistent with the pragmatism paradigm to provide new insights that advance the knowledge base for researchers and practitioners alike. The following criteria guide the progression of the below-mentioned project tasks.

- Ground the analysis in the perspectives, observations, experiences and beliefs of practitioners.
- Demonstrate 'knowing' through the critical analysis of data to identify the 'what, why and how' of the research problem.
- Situate problem-solving in current practice while recognising learning from the recent past using credible peer-reviewed and popular literature.
- Recognise that knowledge is attained at a point in time, and that recommendations in this study may be abandoned or reframed as understanding increases.
- Provide a persuasive response to the research question that emphasises both a socially valuable end (i.e., recommendations for doing the right thing) and makes commercial sense for companies (i.e., doing the thing right).

The completion of the following project tasks will enable an answer to the research question.

- Task One: Provide a historical and contemporary perspective on jobs decision-making and the connection to the social and business context.
- Task Two: Present a theoretical approach that can assist in 'framing' the analysis.
- Task Three: Develop and apply a research methodology that blends theory with practice to address the research question.
- Task Four: Identify formal and informal jobs decision-making processes and whether they constrain or enable the consideration of the social context.

- Task Five: Understand why resource projects make jobs decisions and the trade-offs and connections between the external and internal drivers and the consideration of the social context.
- Task Six: Identify the level of institutionalisation of the social context in jobs decision-making.
- Task Seven: Highlight positive and negative intended and unintended social consequences of jobs decisions and the role of the SIA in drawing out these impacts.
- Task Eight: Use a 'live' project example, drawing on publicly available material, to further explore the social context and impacts associated with jobs decisions.

1.8 Chapter outline

The project contains ten chapters in addition to a bibliography and appendix (presented in Table 1 below).

Table 1 Chapter outline

Chapter	Task No.	Details
One: **Introduction**		Introduces the topic, explains its relevance, and sets out the research question and key definitions used throughout the study.
Chapters Two to Four frames the problem through a comprehensive multidisciplinary peer-reviewed and popular literature review positioning the social context of jobs decision-making within an external societal, institutional, and internal business context. The research and analysis presented in Chapters Two, Three, and Four, provide a compelling case for understanding how companies consider the social context in jobs decision-making. Institutional theory presented in Chapter Three provides a valuable framework to inform the analysis. These chapters are essential to situate job decision-making within the external, institutional, and internal business context.		
Two: **External jobs decision-making influences**	One	Draws on literature to present the external context and the historical and contemporary importance of resource sector jobs for local communities and regions. The chapter also outlines the external stakeholders that influence companies to give greater consideration to the social context in large-scale project decision-making.
Three: **Institutional jobs decision-making influences**	One Two	Presents the institutional context, covering institutional theory, CSR, and the concepts of shared value and social licence to operate. The study uses this theory and these concepts to guide and frame the analysis.
Four: **Internal jobs decision-making influences**	One	Focuses on the internal business environment and the importance of job decision-making for the project business case. The literature reviewed in Chapters Two, Three, and Four combine to address task one.

Chapter	Task No.	Details
Five: **Research design**	Three	Presents the research design. The thesis uses a grounded theory methodology underpinned by the pragmatism research paradigm. Data from 29 semi-structured interviews with social performance personnel and project decision-makers is triangulated with a multidisciplinary literature review, and a case study of the Papua New Guinea (PNG) LNG Project. Qualitative research complemented by analysis of existing quantitative data is used to construct the understanding of the problem and to address the research question.
Chapters Six to Nine present the findings of the research and focus on understanding the complexities involved in jobs decision-making and consideration of the social context. Chapter Ten concludes the research project, drawing together the analysis from across the chapters to address the research question.		
Six: **Jobs decision-making in practice**	Four Five	Draws on feedback from the semi-structured interviews to identify formal and informal jobs decision-making processes and explore whether they constrain or enable the consideration of the social context. The chapter provides an understanding of why companies make jobs decisions and the trade-offs and competing drivers that inform this process.
Seven: **Institutional-isation of the social context in jobs decision-making**	Six	Utilises key concepts from institutional theory presented in Chapter Three to assess the extent to which jobs decision-making institutionalises fuller consideration of the social context.
Eight: **Social consequences of jobs decision-making**	Seven	Provides an understanding of the potential social impacts of jobs decision-making. The chapter examines five interconnected themes of *business factors, communities of interest, socio-economic considerations, service delivery enablers, and broad-based development* to understand how the social context can impact on and inform jobs decision-making. The chapter also examines the role of the SIA in providing information on the social context to inform jobs decision-making.
Nine: **PNG LNG Project: jobs decision-making case study**	Eight	Presents a case study of the PNG LNG Project, based on public material, to analyse the extent, in this example, to which the project approvals phase drew out the social context associated with jobs decision-making. This analysis is then compared with the social issues and opportunities experienced by communities during project implementation.
Ten: **Conclusion: towards best practice jobs decision-making**		Summarises the findings from the research and the theoretical precepts developed, providing, as the thesis, an answer to the research question. The chapter summarises the original contribution to knowledge and identifies further areas for research. The chapter presents the rationale for fuller consideration of the social context in jobs decision-making and sets out a recommended approach, including a range of propositions to ground the development of new theory in practice.

1.9 Study scope

The study:

- focuses primarily on internal jobs decision-making processes for large-scale resource projects at the design and approvals project stage and not for operations.
- does not evaluate the suitability and effectiveness of company jobs commitments and community outcomes.
- does not include interviews with external community stakeholders because the emphasis was on internal company decision-making.
- refers to the impact of neoliberalism on jobs decision-making, the concepts of social licence to operate, shared value, and CSR, but does not seek to provide an in-depth critical assessment.
- provides broad cultural insights from interviewees but is not a comprehensive organisational cultural assessment.
- provides markers and an indication of the potential generalisability of the findings, but recognises the need for further research to test the recommendations in a third world versus first world context.

2 External jobs decision-making influences

2.1 Introduction

This chapter uses peer-reviewed and popular literature sources to map the external context associated with large-scale project jobs decision-making. The analysis of the literature in this chapter highlights the historical and contemporary importance of resource sector jobs for local communities and regions situated near projects and operations. It also documents the divergent academic views on the job-generating potential of the industry and outlines the external stakeholders who influence companies to give greater consideration to the social context in large-scale project decision-making. This debate is situated within a broader discourse on the resource sector's economic growth and development potential connected to the concepts of the 'resource curse' and the 'paradox of plenty'. External stakeholders examined in the literature are local and regional communities, governments and regulators, project financiers and investors, social activists, and unions. Chapters Two, Three, and Four combine to provide the social and business contexts to address Project Task One.

- Project Task One: Provide a historical and contemporary perspective on jobs decision-making and the connection to the social and business context.

Chapters Two, Three and Four draw together a large body of multidisciplinary literature across the disciplines of social sciences, business, human resources (HR), economics, regional development, finance, project management and political science. This approach is necessary in order to provide the background information needed to understand the complexity of the study.

2.2 Jobs and the resource sector

The creation of jobs is a key criterion by which community and government stakeholders judge the economic merits of resource projects (Kapstein and Kim 2011, p. 32). This expectation makes jobs decision-making a potentially highly politicised and contentious matter for companies, from the commencement of project design through to the approvals phase, construction, and operations. To understand this sensitivity and the points of

contention from a local and regional community viewpoint first requires consideration of the importance of jobs to society.

Developing economies urgently need access to quality jobs that provide opportunities for the poor, empower women, link to export markets, and support industry diversification to drive socio-economic progress (World Bank 2013b). These types of jobs are transformational for communities and nations, leading to social and economic development through raised living standards, a reduction in poverty, labour productivity improvements, and social cohesion (World Bank 2013b). Approximately 200 million people are unemployed globally, with 75 million of them under the age of 25 (World Bank 2013b, p. 5). At the same time, policy makers and governments recognise that another two billion working-age adults, many of whom are women, form part of the hidden unemployment, those who want a job but do not currently work or have given up looking (World Bank 2013b, p. 5). Across developing economies, even for those employed, many are in low-paying roles or the informal sector, not earning enough to provide a basic quality of life. Over the next 15 years, the developing economies of East Asia, the Pacific, South Asia, and Sub-Saharan Africa require 600 million new jobs to soak up the unemployment and underemployment crisis (World Bank 2013b, p. 51). Policymakers and academics recognise the pressing global urgency to create a large number of quality jobs (IFC 2013, p. 5). The challenge remains how best to generate these jobs and in which sectors to achieve the United Nations General Assembly (UNGA) Sustainable Development Goal (SDG) 8 to: “promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all” (UNGA 2015, p. 14).

Resource-rich developing economies have the potential to create quality jobs given the investment potential over the next two decades. A recent McKinsey Global Institute report by Dobbs et al. (2013) identified 81 resource-driven economies, with another six targeted by the International Monetary Fund as future exporters. The report, while containing ambitious projections in today’s constrained economic environment, indicated new investment in resource projects of USD 17 trillion by 2030 to meet consumer market demand (p. 27). Within this figure, low and lower-middle income resource-producing countries could benefit from USD 1.2 trillion to USD 3 trillion of cumulative resource investment, lifting 54 million people out of poverty (Dobbs et al. 2013, p. 33). The report recommended that government assess the total value of project linkages for communities and develop policy to

remove impediments to the realisation of direct employment and indirect jobs in the supply chain and related infrastructure. Dobbs et al. (2013), (drawing on research from the World Bank by Freund and Ianchovichina (2012)), projected that USD 111 billion of annual investment in resource-related infrastructure in resource-driven countries to 2030 could create 5.4 million jobs (p. 55).

Access to jobs is also a significant issue for some regions and social groups in developed economies, remote indigenous populations in particular. In Australia during the 2011 Census, 17.2 percent of the Indigenous (Aboriginal and Torres Strait Islander) population identified as being unemployed, compared with 5.5 percent for non-indigenous Australians (ABS 2011). The resource sector presents significant opportunities for indigenous employment, given the estimation that more than 60 percent of Australian mining operations are located near indigenous communities (Minerals Council of Australia 2014; Tiplady and Barclay 2007). While indigenous communities historically received minimal opportunity to participate in resource sector workforces, this situation has changed over the last two decades, albeit still at low levels (Langton 2010). The 2011 Census identified the mining industry as the tenth largest employer in the Australian economy but the biggest private sector employer of indigenous people. Despite this national data, Taylor and Scambury (2005) found that improvements to the economic status of local indigenous communities near operations (regarding the Pilbara in Western Australia) has been marginal (a point expanded on below with reference to the resource curse and project linkages).

2.3 Regional development potential and historical jobs linkages

While the projected growth of the sector provides the promise of employment, policymakers and academics express divergent views on the job creation and linkages potential for local and regional communities.

Linkages for large-scale resource projects are many and varied. The creation of employment can occur through direct employment with the project or through indirect project linkages. Indirect employment through linkages can occur in the form of subcontractors, suppliers, and related service provision:

- forward (downstream processing);
- backward (upstream phases);

- vertical (separate firms following in a process) (Eliot Hurst 1972, p. 138);
- horizontal (supply of goods and services by separate firms to the project or sector);
- diagonal (one supplier to a group of companies);
- multiple (total linkages of industries using common services);
- clusters (a group of similar things in proximity providing localised economies of scale); and
- technological (technology transfer, capacity building, and innovation across the cluster).

Jobs can also be induced, created from the demand by resource sector workers for goods and services.

A broader dialogue on the resource sector's economic growth and development potential connected to the concepts of the 'resource curse' and the 'paradox of plenty' frames the job creation and linkages opportunities debate. The resource curse refers to the phenomenon where countries rich in natural resources (especially mining and oil and gas) can grow more slowly and experience lower development outcomes than countries with less natural resources (Auty 2007). A large body of researchers attribute the resource curse to a range of suboptimal socio-economic conditions and decision-making. Natural resources wealth (especially during booms) may lead to the development of public policy that takes a short-term timeframe and supports a political agenda (Blanco and Grier 2012; Kolstad and Søreide 2009). This situation can result in a rise in Government spending instead of investing for the longer term (Lange 2004); an increase in rent-seeking (acquisition of a greater share of resource rents); and patronage (using public resources to secure political power or for political opportunism) (Auty 2001; Kolstad and Søreide 2009; Mehlum, Moene and Torvik 2006; Robinson, Torvik and Verdier 2006). Auty (2007) found, however that the resource curse "is not a deterministic phenomenon" and is more likely related to deficiencies in government policy (p. 628).

Such findings, support the view that the potential for countries to experience the resource curse is multi-faceted. The curse can, therefore, be a symptom of greed, corruption, poor governance, weak unaccountable institutions and opportunism associated with the 'paradox of plenty' (Cabrales and Hauk 2011; Leite and Weidmann 2001; Di John 2011; Hilson and

Maconachie 2008; Kolstad and Wiig 2012). In addition to the role of policy and institutions, the resource curse can also be a symptom of Dutch Disease. In this situation, large rent revenue windfalls can push up the demand for labour and, therefore, labour costs. In turn, an appreciation in the real exchange rate can ensue, resulting in a contraction in other industry sectors such as manufacturing. Resource-rich economies without a diversified industry base can become extremely vulnerable to external shocks (such as market contractions) (Dauvin and Guerreiro 2016). Taylor and Scambury (2005) found that indigenous local communities near mining operations in Western Australia (a developed economy context), have also experienced similar conditions of the resource curse in terms of deficits in policy settings, institutions, low socio-economic indicators and levels of industry diversification.

Auty (2007), therefore, concluded that the resource curse, "is not an inevitable outcome of resource-abundance", and that strengthening policies, institutions and governance processes is key to minimising the probability of its occurrence (p. 630). Company approaches to project jobs decision-making can unintentionally become embroiled and be positively and negatively impacted by this larger development debate (as highlighted throughout this study). While it is generally the actual wide spread corruption in developing resource countries which leads to underdevelopment related to the resource curse, large-scale projects are often perceived by communities and activists as a contributor, only being there to exploit the resource and to make money (Ackah-Baidoo 2012).

The next part of this section explores the historical importance of the resource sector to job creation and project linkages. This discussion then connects to a range of developed and developing economy contexts, which reiterate the importance of effective governance and institutions as identified by the above resource curse theorists.

During the late nineteenth century and early to mid-twentieth century, when mining operations served the resource needs of the surrounding area, project linkages created quality sustaining jobs and significant community and regional growth for various developed economies (Eggert 2001, p. 31; Radetzki 1982). These operations tended to be labour-intensive providing significant employment, with high transport costs prohibitive to exporting products outside the local catchment (Eggert 2001). The mining machinery and equipment used was also far more basic than today, which enabled local businesses to grow through

horizontal linkages by providing repairs and maintenance services to the industry (Radetzki 1982). High transport costs provided a strong competitive impetus to create forward linkages with manufacturing operations established near the raw material source and/or nearby port facilities. Access to and the cost of water and electricity are especially important for mining projects, in addition to being typically expensive for initial installation (Eggert 2001). By contrast, the scaling of this infrastructure for additional operations and to capitalise on other economic activities incurred a relatively low cost (Eggert 2001). Accordingly, settlements and villages grew into towns (and into cities in some instances) to service operations, resulting in the establishment of multiple technological and cluster linkages in and among firms servicing the resource sector as well as other large-scale activities like manufacturing. Energy infrastructure and improved transport hubs subsequently formed, creating virtuous circles, a pole of regional industrial growth, diversification, and employment (Radetzki 1982).

Countries that experienced strong regional growth through resource sector linkages during this era include Norway (oil and gas); Canada (various commodities and oil and gas); the United States (gold and silver); Australia (gold, iron ore, coal and other minerals); and Chile (nitrate and copper) (Cappelen and Mjøset 2009; Eggert 2001; Radetzki 1982; Sachs and Warner 1995). Resource rents across these locations were relatively well managed by governments during this era. Having strong bureaucracies, political institutions, democratic participation and interest groups before obtaining the mineral windfalls enabled these countries to capitalise on the favourable market conditions and high product demand to grow their economies (Canel, Idemudia and North 2010; Di John 2011; Pegg 2006b). By contrast, the situation in developing countries during this period was much less favourable, especially for oil and gas producing countries in Sub-Saharan Africa. The lack of the above pre-existing governance conditions significantly affected the ability of developing economies and communities to gain enduring benefit (Aissaoui 2001).

Neoliberal reforms combined with globalisation and technology drove significant expansion across resource producing countries in the 1950s, 1960s, and particularly the 1980s. Proponents at the time believed that “market forces typically unleash growth, innovation and efficiency, whereas government regulations and expenditures typically impede growth, stifle entrepreneurship, and generate inefficiencies in both private and public sectors” (Head 1988, p. 466). Free trade agreements led to the rewriting of mining codes and the easing of market restrictions, providing a conducive environment for attracting foreign direct

investment especially in developing economies (Jenkins 2005). As an example, this era saw many previously state-owned mining companies in Africa transfer to publicly-listed and private ownership (Campbell 2010).

Neoliberalism saw a retreat from proactive regional policy, planning, and expenditure by governments in areas of economic development, service and infrastructure provision, and spatial planning in resource economies (Hardy et al. 1995). In advanced countries, this situation resulted in a significant reduction in the investment in small resource towns and communities and limited financial support for the development of new towns (McKenzie 2010). As a consequence, over the last few decades, governments have continued to under-invest in the maintenance, upgrade, and renewal of regional and community social and economic infrastructure and services, such as schools, hospitals, roads, railways, water facilities and energy capacity (Tonts and Haslam-McKenzie 2005). These are the local and regional community facilities required to attract and retain a resident resource sector workforce.

During this neoliberal reform period (especially the 1980s), resource operations became huge, complex, and capital-intensive, as they catered to a world market (Canel, Idemudia and North 2010). As technology use increased, it resulted in a significant drop in the demand for labour (Eklund 2015). Companies could mostly source unskilled labour from the area but not the highly specialised technical skills required to operate complex equipment (Radetzki 1982). Many host communities have experienced rapid and massive change associated with the growth of the sector. A complex and shifting mix of both positive (new jobs and linkages) and negative social impacts (population influx, increased conflict and a potential inability to secure skilled jobs at the local level) has ensued.

Since the advent of neoliberalism, two distinct schools of thought have emerged regarding the contribution of the resource sector to local and regional jobs creation. The first does not consider the industry a significant generator of sustaining jobs compared with agriculture, construction and the services industry (Frynas and Paulo 2007; Hilson 2012b; O'Connor and Kershaw 1999; Pritchard 2003; Ross 2001; Thorbecke 2013). Proponents believe that the resource sector generates few (if any) multipliers (and indirect jobs), with work rapidly decreasing post-construction (Beer, Maude and Pritchard 2003; World Bank 2013b).

Researchers criticise resource projects (especially oil and gas) for creating economic 'enclaves' that employ relatively few people and have weak backward and forward linkages to the rest of the region and economy (Ackah-Baidoo 2012; Arias, Atienza and Cademartori 2014; Auty 2006; Evans, Goodman and Lansbury 2002; Thorbecke 2013). These effects are particularly evident in developing economies in Sub-Saharan Africa, Latin America, Asia, the Middle East and PNG (Ackah-Baidoo 2012; Gilberthorpe and Banks 2012; Kapelus 2002; Thorbecke 2013). The Kimberley and other remote Australian mining regions are examples of developed economy enclaves (Pritchard 2003). A fundamental difference between oil and gas and mining, however, is that mining does have the potential for greater employment (albeit still at low levels) due to the more labour-intensive nature of the open pit operation and demand for low-skilled employment (Gilberthorpe and Banks 2012).

Although mining may have contributed to gross domestic product (GDP) growth at the macro level, developing economy communities have struggled to capitalise on jobs, linkages, and opportunities both before and after the neoliberal reform period (Campbell 2012; Hilson 2012a). Substantial contributing factors are poor governance systems and limited planning and provision of social and economic infrastructure, which are mostly outside a company's sphere of control (Perks 2012). Local inequities and social issues (such as in-migration), the disruption to traditional livelihoods, and the detrimental impact on environmental conditions from projects and operations compound concerns about the lack of benefits (IIED 2002; Wagner and Armstrong 2010). Some commentators argue that the negative impacts of the resource sector on local communities are greater than for other industrial activities (Hilson 2012a; Yakovleva and Vazquez-Brust 2012).

Proponents of the second school of thought believe that through the inclusion of indirect jobs and backward and forward linkages, combined with careful planning, the resource sector has the potential to be a significant contributor to growth (Aragón and Rud 2013; Castillo et al. 2001; Eggert 2001; McMahon and Remy 2001; Pasco-Font et al. 2001; Pegg 2006b). Various policy makers and consultants have used Input-Output analysis to identify the employment impact for mining and oil and gas projects. Agerton et al. (2015) found, however, that the use of this method, which is commonly used in economic analysis can overstate employment multipliers. Estimates of jobs linkages, therefore, vary depending on the location and the methodology used to undertake economic analysis (Auty 2006). Multipliers are unique to an area, the resource project type (e.g., oil and gas, mining,

supporting infrastructure and the project lifecycle), and are dependent on the size of the region, and the existing level of industry diversification. The workforce's residential and non-residential structures, the proactive nature of government policies and the strategy implemented by the company all combine to influence the jobs linkages potential (Aragón and Rud 2013; Dobbs et al. 2013; Eggert 2001, p. 23). The expansion of resource projects into landlocked countries, with transportation routes usually traversing to a coastal region, can magnify the cross-national regional footprint and employment linkages (Rugman 2005; Rugman and Verbeke 2005).

Some analysts estimate that the indirect regional employment effect could be a ratio of 1:1 between new jobs in mining and indirect jobs while others put indirect jobs at a multiplier of six per direct job (Castillo et al. 2001; Pasco-Font et al. 2001). A study by Ejdemo and Soderhold (2011) found that the indirect multiplier could be above two during the maximum production phase, due to cluster benefits.

To forecast the multipliers emanating from upstream onshore oil and gas Agerton et al. (2015) used rig count data from the United States between 1992 and 2013 and assessed that each additional rig created 37 jobs immediately (direct and indirect) and 224 over the longer-term. The authors acknowledged that the data was conservative with robustness checks indicating that the multipliers could be higher (p. 1). Weber (2012) used the value of gas projected as compared to the percentage of shale oil deposits in the United States across counties in the states of Colorado, Texas and Wyoming. Weber assessed that an additional USD one million dollars of gas production led to 2.35 additional jobs in each county.

Lee (2015) compared onshore shale oil and gas wells across Texas during the boom between 2009 and 2014 and found that the employment multiplier for the drilling of gas wells was 6.04 compared with 2.41 for oil wells (p. 68). Lee found that the economic impacts (jobs and income) were greater in more developed than rural areas of the county. Lee surmised that the difference was a result of the developed areas having more capital, labour resources and infrastructure to capitalise on the positive economic shock (p. 68). For the extraction phase, the data suggested that one job in oil extraction generated 1.65 indirect jobs in the long run and that an active gas well supports 3.65 jobs in a county, with .68 jobs directly associated with drilling and extraction (2015, p. 70).

Dismukes et al. (2003) assessed the offshore employment multipliers for three lease areas for the state of Louisiana in the United States that represented 30 percent of the total landmass. The economic analysis across each lease area, led to similar results, but confirmed slight differences in the data due to sectoral linkages and leakages out of the economy of the specific lease area. While the total number of jobs was greatest during the production phase, the employment multiplier was the most significant during exploration and development. As an example, the analysis of lease area two found that each job during the exploration phase created one indirect and one induced job with the results the same during development. For the production phase every 0.128 jobs created 0.119 indirect and 0.073 induced roles (p. 31-33). The data does not enable a comparison of the jobs generating potential of onshore versus offshore oil and gas projects given that multipliers are unique to the project and location context.

The oil and gas multiplier examples by Agerton et al. (2015), Dismukes et al. (2003), Lee (2015) and Weber (2012) confirm the findings of other researchers (as above) that the multiplier and project linkages potential of the resource sector is unique to a given area. The examples by these researchers also highlight that oil and gas projects can contribute to regional growth through employment multipliers in a stable economic setting (in this instance within a developed economy). These multipliers, therefore, support the position of Auty (2007) that the resource curse is not inevitable.

2.4 Societal expectations

Neoliberalisation increased the investment attractiveness of resource economies and reduced the level of risk but also contributed to the sector being subject to higher societal expectations (Campbell 2003; Maconachie and Hilson 2013). In addition to access to local jobs and small business opportunities, communities expected that resource companies would provide basic social services and infrastructure near operations to make up for the withdrawal of support by the government. It is important, however, to acknowledge the differences in regions and communities and that they are not homogenous. In developed economies like Australia, even in remoter regions such as Far North Australia, Government service delivery and infrastructure, while often inadequate, still co-exists at a regional scale with the resources sector (Pritchard 2003). Gaps in infrastructure are, however, more evident across remote indigenous communities (Langton and Mazel 2008). By contrast in

developing resource economies, basic social services and infrastructure can still be mostly unavailable (Hilson and Garforth 2013; Maconachie and Hilson 2013).

Third world resource economies and specifically oil and gas fragile countries, therefore have high expectations of the role of the resource sector (Cash 2012). Fragile states are ones that have a combination of dysfunctions which may include a higher likelihood of conflict and civil war, persistent extreme poverty, weak governance and the inability to provide basic services (Bertocchi and Guerzoni 2012). Companies in these enclave and fragile areas, across continents like Sub-Saharan Africa, often find that they are placed in the position of having to take a more upfront development and capacity-building role (Ackah-Baidoo 2012). Local communities will expect support in traditional Government areas and to address systemic issues such as high poverty levels, illiteracy, unemployment, poor governance and a lack of infrastructure (Muthuri, Moon and Idemudia 2012).

When local communities and civil society consider that their demands have not been satisfied (either in the approvals, execution, or operations phases), concerns can amplify resulting in an increase in protests, blockades, media and shareholder campaigns, and lobbying of government (Prno and Slocombe 2012). In some cases, organised community resistance has resulted in the retraction of licences, forced the suspension or abandonment of projects and operations, or led to protracted legal action among stakeholders (e.g., the company, government, and landowners) (Kirsch 2007; Prno and Slocombe 2012; Slack 2012). All of these outcomes have considerable economic and opportunity cost for companies. The production of oil in developing economies (especially Sub-Saharan countries) can be a particularly strong indicator of the potential for prolonged disputes, wars and separatist conflict (Ross 2004). Ross (2003) concluded that the capital-intensive nature of the industry offering fewer jobs to locals (compared to other industry sectors and forms of natural resources) and more benefits to the state and large companies was a significant contributor to this conflict. Protracted conflict can also ensue from the opposition of residents in affluent or indigenous communities to resource projects. While some indigenous communities consider resource projects as providing opportunity, for others, the presence of the project can exacerbate historical perceived injustices and can incite clan warfare over the rightful access to project benefits relative to the proposed negative impacts (Davies, Maru and May 2012). Costs of conflict, downturns, and blockades can be significant, around USD 20 million per week in delayed net present value loss of sales for a capital project of

USD 3-5 billion (Davis and Franks 2014, p. 88). Typically the most significant effects of conflict for the company are the opportunities foregone in being able to secure future leases, project opportunities, and sales (p. 8).

Community expectations of equitable access to jobs and resultant clashes in a developing economy can start from exploration and may not abate, necessitating close management by companies across the project lifecycle. Clashes between communities and companies over perceived inequitable access to jobs can be a symptom of underlying conflicts regarding rightful landowners and community members eligible for project benefits. Two recent examples of violent protest during operations illustrate this occurrence in South Africa, a country with high levels of youth unemployment and ongoing labour disputes.

> *"Give us jobs!' – protestors torch ZAC mine offices" (Cowan 2016)*

Local communities near the Zululand Anthracite Colliery demanded employment for the unemployed in the area from the local colliery leading to ongoing violence, including the torching of buildings and cars.

> *"South Africa: community protests against Rio Tinto's Richards Bay Mine over 'unequal treatment of host communities' disrupt operations" (Magwaza 2016).*

Local communities near the mineral sands operation shut down operations after many weeks of dispute, demanding permanent jobs and access to equal opportunities.

> *"Fear and death stalk RBM Mine" (Harper 2016)*

Within a matter of weeks the situation at Richards Bay Mine had intensifed following the murder of the site general manager of human resources and a community activist youth leader and his cousin. The conflict has been exacerbated by underlying traditional leadership land claims that has resulted in compensation held in trust rather than dispersed to community members. Ongoing issues also continue to be experienced regarding the lack of access to local business opportunities.

2.5 Other external influences

In addition to local and regional communities, several other external stakeholders influence how companies consider the social context in jobs decision-making, whether directly or to mitigate risks associated with the cost of conflict and doing business in the specific project location. This section outlines the pressure exerted by project financiers, investors, social activists, and unions on companies, which can influence the extent that companies consider the social context in project decision-making.

Project financiers increasingly recognise the cost of conflict in project financing models. Large-scale resource projects access finance from many sources, including bank loans, bonds, funds from DFIs (such as the IFC, the Asian Development Bank (ADB), the African Development Bank, the European Investment Bank and the Commonwealth Development Corporation) and equity. From 1994 to 2002 worldwide, bank loans made up 47 percent of project financing arrangements, bonds 9 percent, DFIs 14 percent, and equity 30 percent (Finnerty 2013).

Debt financing from DFIs and multinational commercial banks is generally contingent on project sponsors' complying with ESG performance standards and guidelines (Finnerty 2013). These standards, which include the Equator Principles and the IFC's Performance Standards, align with a broad range of related policies and codes of conduct (Scholtens 2006). A review of the IFC Performance Standards and Equator Principles indicates that their focus is the management of social and environmental issues and risk mitigation, with limited guidance on the optimisation of benefits (more reference is made to benefits for indigenous peoples and is discussed in detail later in this study). The IFC recently released a discussion paper by Lohde, Armstrong and Nyhan Jones (2015) that provides guidance on how the organisation assesses the equitable sharing of benefits of potential IFC-funded projects. The report emphasises the importance of project employment linkages, commitments to local employment, appropriate recruitment and training, and community development jobs plans, and conversely, ensuring that government employment requirements are realistic (p. 42).

DFIs usually have a broader focus on job creation, innovation, and development than other project financier classes. They often require projects to adopt indicators for the employment of local Indigenous people, disadvantaged groups, and women as well as technological

objectives to improve productivity (Massa 2013). Funding by Export Credit Agencies, by comparison, often incorporates conditions that requires a substantial number of jobs and goods and services to be sourced from the lender country. Rio Tinto's Mongolian USD 4.4 billion Oyu Tolgoi copper mine expansion project financing agreement with a range of project financiers is an example of a project expected to adhere to strict ESG requirements, including the IFC's Performance Standards. This project also has funds committed from the Export Finance and Insurance Corporation of Australia with support conditional on Australian suppliers winning work on the project (Latimer 2015).

Developers must comply with these financier jobs conditions while also demonstrating appropriate risk management according to the various standards, as well as meeting government local participation requirements (covered in subsequent sections of this chapter). Noncompliance can result in default of loan conditions; remedies applied include acceleration of the loan repayment, which provides a strong incentive to remain compliant. Covenants usually extinguish once the loan is repaid (Finnerty 2013). Project financing arrangements also often emphasise high initial debt levels with the proponent focused on maximising cash flows from the commencement of operations to rapidly pay down the debt to reduce leverage (Scholtens 2006, p. 27).

Resource project sponsors (depending on the project financing structure and the number of projects under development at the time) will generally seek to scale up to full production rapidly to generate cash flows to decrease leverage and to meet the performance requirements of financiers. Project financier terms can drive the proponent to be schedule-driven during the construction phase (especially with construction-only lenders). Companies can seek to reduce social commitments and mitigation measures or to postpone them until fully operational, thereby deferring outgoing cash flows. Substantial local and regional job creation during the construction phase can conflict with minimising the cost of finance. Local workers in developing economies, while cheaper than developed economies, can require considerable upskilling to be competent in their roles. The lack of requisite skills can from the outset have a correspondingly negative impact on productivity that can impact on the ability of the project team to deliver the project to schedule in accordance with financier terms and to meet market demand. In developed economies, high labour costs and low productivity can exacerbate project overruns also detrimentally impacting on the cost of finance (discussed in more detail in Chapter Four). At the same time, a lack of oversight by

finance governing bodies can result in social commitments made to secure funds failing to eventuate, once the debt is repaid (Finnerty 2013).

There is also some evidence that long-term shareholders are increasingly likely to expect corporate boards to act in more responsible ways (Armour, Deakin and Konzelmann 2003). While these stakeholders currently exert a limited effect on sustainability performance, this situation is forecast to change as these investors grow in prominence compared with short-term shareholders (Scholtens 2006, p. 28). In 2014 in the United States, strategies of sustainable and responsible practice guided the investment of more than one in every six dollars of funds under management. This investment of USD 6.57 trillion, represents a 76 percent increase since 2012 and is estimated to constitute 18 percent of the total value of global capital markets (The Forum for Sustainable and Responsible Investment 2014). The growth in shareholder and investor activism and advocacy is contributing to companies focusing more attention on the management of risks and integrated sustainability reporting, linking ESG strategy with financial reporting. Contradictory investor views and expectations are evident regarding jobs and the financing of resource sector projects (as examined later in this study). On one hand, DFIs include jobs criteria in funding agreements and project financiers expect more emphasis on social and environmental risk management. On the other, short-term investors expect developers to reduce costs and increase workplace productivity (EY 2013, pp. 19 - 22). It is unclear from the existing research, how companies consider and manage these perspectives in jobs decision-making.

Neoliberalism and increased global investment in the resource sector have occurred in tandem with a surge in social activism (most evident in developing economies) to support local community concerns of perceived detrimental effects (and lack of benefit) of projects (Bebbington, Hinojosa, et al. 2008; Eggert 2001). Activists include civil society, NGOs, religious organisations, academics, unions, student bodies, ethnic and indigenous groups, and investors across local, national, and international borders (Luning 2012). Access to local jobs and a call for companies to shift to a more development-oriented approach focused on poverty reduction are among the top priorities of NGO and social activist action (Fox 2004). NGOs have responded to social concerns and expectations by increasing their influence and focus on multinational corporations (MNCs), holding resource companies accountable for their environmental and social actions (Ali 2009; Brereton 2004; IIED 2002; Luning 2012; Vogel 2010).

Bebbington and Humphreys Bebbington et al. (2008) provide case studies of social mobilisations connected to mining in Peru and Ecuador and summarise two main forms of social movements (also applicable globally) drawn from the literature. The first seeks to exploit an opportunity with a workplace focus and has, for example, created labour movements and trade unions. At the heart of the union approach, is the relationship to political and economic contexts, with the rise of conservative governments and privatisation during the 1990s neoliberal era being a time of scaling back of union powers (Ellem 2015a). Unions seek to expand their reach beyond the workplace, collectivising stakeholder action, driven substantially by the push to maintain relevance, ensure the protection of human rights and workplace conditions, and increase political influence in an era of declining membership.

The second movement emphasises dispossession and issues relating to land, minority groups, human rights, accountability and transparency, CSR, and environmental justice (Bebbington, Humphreys Bebbington, et al. 2008). Religious organisations are an important stakeholder in this movement as well as an ally for resource communities (Van Buren III 2005). Religious organisations actively lobby companies through shareholder resolutions, legal recourse, protests, demonstrations, and boycotting (Van Buren III 2005). They can also align their interests at times with unions in the pursuit of improvements to human rights and workforce practices and are growing in prominence as project financiers and investors. In the future, the lines and roles could become more blurred for MNCs, with religions and religious organisations potentially becoming involved as investors and financiers in infrastructure and resource projects (Finnerty 2013, p. 305).

Stakeholders within these two movements commonly participate in broader activism coalitions where interests are aligned (della Porta 2006; Utting 2008; Vogel 2010). Campaigns draw together direct and indirect workforces, communities, indigenous groups, and people dispossessed from their lands (della Porta 2006, pp. vii-viii; Utting 2008). In Latin America in Colombia, Peru, Brazil, and Australia, vitriolic campaigns have focused on the resource sector (Bennie 2011; Utting 2008).

2.6 CSR and regulations

Expectations from local communities and the stakeholders mentioned above continue to bring company CSR practices to the forefront. Even today, CSR has many meanings and is not a consistently-applied term (Cash 2012; Lin-Hi and Müller 2013; Slack 2012). Crane,

Matten, and Spence (2008) identified from a comprehensive review of the literature six ideal, consistent concepts across definitions of CSR as presented by Bondy, Moon, and Matten (2012, p. 5). CSR is:

- largely voluntary;
- focused on internalising and/or managing externalities of the goods or services made;
- representative of the main multi-stakeholder needs and views;
- seeking alignment of social, environmental, and economic responsibilities in both routine activities and decision-making;
- embedded in both practice and values; and
- focused on operational considerations beyond philanthropy.

The freeing up of trade markets and access to resources and the evolution and acceptance of CSR are interlinked. An understanding of this connection is necessary to frame jobs decision-making. The neoliberal model implies a reduction in state regulation and a corresponding increase in corporate self-regulation and voluntarism, reflecting the view that freely functioning market forces would keep corporations in check (Utting 2005b; Warnaars 2012). Academics favouring a neoliberal approach see CSR as providing strategic benefits to corporations, largely involving the adoption of voluntary policies, codes, and practices linked to risk management, and minimising government intervention and stakeholder and activist pressure (Broomhill 2007, p. 7). Over the last 10-20 years, resource companies have embraced CSR as a voluntary and non-binding approach that is separate to the regulatory environment (Pegg 2012; Shamir 2004; Warnaars 2012).

Critics of MNCs have argued that CSR approaches have neglected the imbalance in power or contestability of views between companies, governments and communities and have given inadequate consideration to the consequences of economic decision-making for society (Newell 2000, 2005; Utting 2005a, p. 375; Vogel 2010). Criticism has increased since the global financial crisis in 2008, with some academics and business leaders now advocating tighter regulations of corporations and the market using a neoKeynesian model as a baseline (Kemper and Martin 2010; Posner 2009; Solow 2009). Proponents believe that state regulations can complement voluntary codes (Jeffcott and Yanz 1999; Kemper and Martin 2010).

Scholars recognise that state regulations in some settings are important political instruments, incorporating incentives to ensure company responsiveness and providing communities with leverage to address their concerns (Trebeck 2008, p. 558). A practical issue, however, covered in the resource curse discussion above, is that the weak enforcement of legislation, poor governance and corruption, experienced across many developing economies can result in regulation being an ineffective CSR instrument (Hilson 2012a). A key finding by researchers is, therefore, that for regulation to be effective, governments must have the capacity to monitor outcomes and must possess the will to assume this role, and the political forces surrounding the regulatory environment must be balanced (Perks 2012).

2.7 State influences

Heightened community expectations, supported by pressure from social activists and combined with variable industry CSR practice, are significant drivers for governments to implement local content and participation (jobs) regulations. These regulations have evolved within a broader resource nationalism context (Kohl and Farthing 2012). This section outlines the political context driving the development of the regulatory environment and finishes by questioning the extent to which industry is strategically considering the nexus between the political and regulatory environment, CSR, and jobs decision-making.

For producer countries, resource nationalism refers to states seeking and taking increased control in natural resource projects of economic significance (Click and Weiner 2010, p. 784). It assumes many forms, from the renegotiation and cancellation of contracts to nationalisation, to stringent demands for project equity, through to requirements for national shares in joint venture arrangements. Rapid developments in taxation regimes, mandatory local content and participation regulation, export restrictions, reservation of quantities of product for national use, and social contribution requirements can also be a factor (Ward 2009). Since the global financial crisis, resource nationalism has rapidly escalated to become a key political, economic and business risk (Click and Weiner 2010; Deloitte 2014; EY 2013, 2014; Ward 2009). The interrelated societal drivers for resource nationalism are resource security, climate change, sustainable development, and poverty reduction (Ward 2009, p. 5). Regulatory regime structures and the links with resource nationalism typically correlate with country's political and economic ideologies of capitalism and socialism (Ward 2009).

Consuming countries (particularly for oil and gas) are partnering with state owned corporations and MNCs to secure access to resources for the future. As an example, foreign direct investment (FDI) is focused on securing more oil for consuming countries with petroleum the largest component of the resource sector for international trade (Click and Weiner 2010; Stevens 2008). West Africa, Russia, and the Persian Gulf countries are currently the key oil-producing markets on which other countries depend for petroleum unless geologists find new, as yet unidentified provinces (Frynas and Paulo 2007). The American and Chinese governments supported by various MNCs seek to secure Africa's (and Latin America's) new oil and gas resources in many fragile states (Frynas and Paulo 2007; Klare and Volman 2006). The Chinese interest in oil is still small compared to MNCs from western countries (Frynas and Paulo 2007). Energy security and diplomatic market relations are the two key motives for China (Frynas and Paulo 2007, p. 238). China has also targeted the like-minded Latin American countries of Venezuela, Ecuador, Brazil, and Argentina as a primary FDI focus (Weitzman 2013). Consumer countries recognise that a visible commitment to local jobs and other benefits can influence the granting of producer country exploration licences, and act as an important mitigator of conflict often present across these politically, economically and socially fragile oil-producing states (Ward 2009).

Across developing economies, consumer countries deliver foreign aid focused on building diplomatic relationships in exchange for access to resources (Weitzman 2013). The western approach centres on liberal economic reform, good governance to mitigate resource curse risks, financial assistance, and human rights (Frynas and Paulo 2007). The Chinese approach favours the provision of unconditional loans, debt relief, and infrastructure (Frynas and Paulo 2007; Ward 2009). The support from China has enabled developing economy governments to access financial resources without the pressure of political and economic reform required by western governments, DFIs, and organisations like the International Monetary Fund (Frynas and Paulo 2007; Weitzman 2013). Chinese investors, however, have expectations of high levels of Chinese procurement and workforce participation in return for financier support, which can cause conflict with local community anticipation of access to work (Brant 2013; Chin 2010; Smith 2013).

Local content and participation requirements for employment and the supply of products and services are a growing instrument of resource nationalism and increasingly incorporated into project approval processes by host governments. These requirements can be regulatory,

voluntary, or quasi-regulatory. The definition of local can be broad and will depend on the country legislative context. It often relates to the national level or being a citizen of that country (Nwapi 2015). Local content and participation can, however, be specified to the landowner and regional level and can include indigenous participation targets through to the national level. Some academics and policy makers consider local content and participation regulations to be an inefficient economic policy instrument but also recognise their political appeal, demonstrating responsiveness to the concerns and expectations of communities and national interests (Ward 2009, p. 38). The previously mentioned study of the McKinsey Global Institute by Dobbs et al. identified that of 87 current and potential resource-driven countries, "more than 90 percent … have some form of local content regulation. Forty-three percent have hard regulation and 48 percent soft regulation, with targets that are not obligatory, or are vaguely defined" (2013, p. 71). Another consideration that can impact on the implementation of local participation regulatory requirements is that in some settings they can be in violation of Free Trade Agreements as well as in conflict with host country discrimination legislation (Dobbs et al. 2013, p. 70).

Government requirements can also include development and investment agreements and labour plans that companies must consider or apply in jobs decision-making. An example is Australian Industry Participation Plans under the Australian Government's *Australian Jobs Act 2013* that focus on Australian business supply opportunities for projects in excess of AUD 500 million. Examples from a developing country context include social and labour plans introduced in South Africa (covering human resources, career progression, and local community development submitted with the application for a mining right) and social development and management plans required for projects in the Philippines (Esteves, Franks and Vanclay 2012).

Mozambique's recent new Mining Law (2014) is another example with strict local content, participation, and beneficiation requirements and stringent obligations on companies for exploration licences and the commencement of mining activities (Buckworth et al. 2014). The new law provides the Government of Mozambique with the ability to revoke mining titles in the event of companies failing to meet regulatory time frames. For businesses, the pragmatic consideration is, therefore, to maintain exploration licences and project approvals and to demonstrate substantive action in accordance with the legislative requirements. The law provides limited time to prove the resource, establish a business case, obtain

government approvals, and seek financier support following a bankable feasibility study. In a pragmatic sense, given the legislative requirement to demonstrate substantive action, companies potentially have limited time to assess in detail the social impacts of business decisions, and/or for these matters to influence the project design.

The Republic of Ghana's recent changes to the Petroleum (Local Content and Local Participation) Regulations (2013) incorporate prescriptive local participation requirements to maximise local labour over all workforce skills levels, with companies required to submit a local content plan for approval of the government before commencing operations. The plan must cover involvement and equity participation of indigenous Ghanaian companies. Requirements include a strategy for the transfer of technology and know-how to these companies, local content targets (including those for suppliers), a local supplier bidding process, and a range of sub-plans for employment and training, research and development, and technology transfer. Prescriptive targets under the regulations exist for local content and participation in the workforce, as well as annual reporting requirements. The government utilises the plan in the evaluation, granting, and renewal of petroleum licences, and the determination of tax incentives and concessions as part of the project approval process. Severe financial and criminal penalties exist under Regulation 46 for noncompliance.

At the other extreme, some resource countries do not have local content, employment, or development policies in place despite the significant presence of the sector. A recent report by the World Bank (2016) identified that in Zambia mining accounts for 61.7 percent of FDI and employs 90,000 people, with 28 percent of total national revenue coming from the sector. At the same time, the sector imports 95 percent of the goods and services procured for operations (p. 5). The report recommended the development of local content, employment, and development policies as a "low hanging fruit priority" for the Government of Zambia (p. 2).

The overall rise in local content and participation regulatory requirements, as well as community expectations, is emphasising the attainment of 'good' local jobs numbers. During the official approvals phase, governments and community members scrutinise the EIS and SIA, associated local content plans, and other public documents to assess local jobs commitments and social impacts. The following two newspaper headlines and excerpts from

Queensland, Australia, convey the potential for local jobs numbers to be highly politicised and well-scrutinised by governments and community members in a developed economy context during the regulatory approvals phase:

> ***Coal-seam gas approval could be linked to jobs: Curtis Pitt***
> *Government approval of new coal-seam gas projects in Queensland may hinge on companies' commitments to support small towns and employ locals rather than fly-in, fly-out workers, the state Treasurer, Curtis Pitt, revealed yesterday. (Elks 2015)*
>
> ***Massive Carmichael coal mine in Queensland not viable, job claims overblown, economist says***
> *There is no way this project will create an additional 10,000 jobs or even an additional 5,000 jobs for the Queensland economy.*
>
> *Adani has conceded that in court - every economist that looks at it would concede the same thing.*
>
> *Acting Queensland Resources Council chief executive Greg Lane said the specific number of jobs was not important. We shouldn't be quibbling about whether it's X or Y jobs, but should be just really happy we've got a project up and running now that will grow employment in regional Queensland. (Smail 2016)*

Increasingly governments (either at the country, state, regional or local level depending on the national context) have legal requirements for resource companies to recognise the rights of indigenous people. Compliance with these legal requirements is often a necessary precondition for companies to secure project approvals to proceed with the project. Governments establish the supportive regulatory environment for these agreements, but the company and Traditional Owners determine and negotiate the contents. Companies can also voluntarily enter into arrangements covering the sharing of revenues, preferential employment and business development opportunities for Traditional Owners and indigenous communities (O'Faircheallaigh 2010).

Examples are Impact and Benefits Agreements in Canada and agreements negotiated pursuant to Australia's *Native Title Act 1993*. These instruments are growing in importance as tools to outline the distribution of environmental, cultural, and social costs and benefits of resource projects between companies and indigenous communities for developed and developing economies (ICMM 2010; O'Faircheallaigh 2004). Increasingly companies are making indigenous employment commitments under the auspices of agreements that

become binding once legally ratified. An example is Rio Tinto's iron ore agreements in the Pilbara, Western Australia, which includes specific targets (Rio Tinto 2013b, 2013c). Another example is the Argyle Diamonds' Argyle Diamond Mine Participation Agreement (2005) that includes an agreed training and employment management plan.

Governments can also put in place specific project approval conditions to provide local jobs benefits, for example, Rio Tinto's Amrun Project in Queensland, with the company developing a public Local and Indigenous Participation Strategy (Rio Tinto 2015). Examples of regulation relating to jobs more broadly include:

- international law; such as International Labour Organization (ILO) Conventions, which are intended to bind those governments which ratify them
- legislation; for example, anti-discrimination laws; minimum wage laws; Broad-Based Black Economic Empowerment Act 2003 (South Africa)
- industrial awards
- negotiated agreements; for example, local content and participation requirements and commitments relating to project approvals, increasingly reflected in legislation
- market-based incentives; for example, taxation incentives to hire locally
- incorporation of CSR standards into contracts; for example, World Bank project investment agreements and local content and participation (adapted from Utting (2005b)).

During the project approvals phase, companies negotiate revenue sharing arrangements with government. These arrangements can include government equity participation, royalties, taxation conditions, infrastructure sharing protocols, grants and local content and participation requirements. The negotiation of revenue sharing can become highly political, which can also influence the determination of local employment and jobs commitments (Stevens et al. 2013, p. 55). This situation can lead companies to apply a politically-motivated bargaining position or a public relations lens to the formation of jobs commitments, "thereby potentially losing the connection to the human/community side – inadvertently not connecting to the social licence" (p. 55). The other aspect of the argument (further explored in Chapter Three) is that taking this short-term approach can see companies not connecting local jobs commitments to the project business case, and setting ambitious targets that

potentially impact longer-term performance. Companies, therefore, need to be proactive and increase their strategic understanding of the connection between resource nationalism and project benefits to influence the development of regulation and project commitments in an informed way (Jamali 2010; Porter and Kramer 2011; Ward 2009). According to two successive annual EY risk reports (2013, 2014), the industry claims that in recent years it has gained a greater appreciation of resource nationalism and management strategies for addressing it that are linked more closely to a development agenda.

Ward (2009) suggests that a clear strategy for the resource sector, when venturing into or already operating in markets where resource nationalism risks are uncertain, is to indigenise, by seeking ways to increase local participation in the project, and ownership to the greatest extent possible (p. 51). This approach requires companies to focus on technological (and productive) capacities in challenging environments and to have the ability to transfer technology and skills to local workforces and state owned corporations (Ward 2009, p. 20). It is recommended as a way to influence and support governments to develop better-designed local content and participation approaches (Dobbs et al. 2013). Fuller consideration of the social context and the tailoring of opportunities for local and regional jobs and capacity building would, therefore, provide a potentially good risk management strategy for corporations. This approach would connect strategic business imperatives with community and government drivers for resource security, productivity, community livelihood, poverty reduction, and prosperity.

While companies have an important (and often strategic) role to play, Pegg (2006b) emphasises that project benefits have little prospect of being optimised unless certain project location development pre-conditions are in place. These pre-conditions namely: country governance; transparency; mandatory and legally binding social, environmental and human rights standards; and addressing larger structural and macro-economic changes such as tariff and nontariff trade barriers, are outside the control of individual projects. Cash (2012), therefore, concludes that resource companies (who are not development agencies), should support, but not play a leadership role in country development agendas. Conversely, many third world governments (especially in Sub-Saharan Africa) lack the capacity to address these matters. This situation implies that for the early entry of large-scale project proponents into countries that these companies should accept that they may need to play a

more upfront development ‘quasi’ government role, supporting communities to set their own policy agendas (Valente and Crane 2010; Visser 2006).

2.8 Conclusion

This chapter has utilised literature from multidisciplinary sources to provide an historical and contemporary perspective on the importance of the external context and the influence of stakeholders on large-scale project jobs decision-making, which has partly addressed Project Task One. External institutional stakeholders include local communities, political representatives, regulatory agencies, project financiers, investors, unions and civil society activists (Stolz 2012, p. 179; Tichy, McGill and Clair 1997; Yeung 2009). The research in this chapter indicates that an understanding of the institutional environment for large-scale resource projects and how it influences consideration of the social context in jobs decision-making is an important part of framing the research problem (covered in Chapter Three).

The chapter highlighted the importance of jobs to local communities and their high expectations of access to employment. It connected the global increase in local content and participation regulations to the political context and the evolution of neoliberal reforms and CSR responses. The analysis indicated that the external stakeholders analysed in this chapter have the potential to be very influential in jobs decision-making. The differing views by researchers on the development role of project proponents versus the state also reinforced that each project location will have its own unique social and governance challenges, and as a consequence locally specific stakeholder expectations to address. The literature, however, did not shed light on the weighting given to the social context in jobs decision-making as a result of the influence of these stakeholders and their expectations. The review highlighted that not engaging with, and considering the views and expectations of, these stakeholders could result in considerable community and project conflict, particularly in developing economies and specifically in fragile, strife-prone oil and gas states. Fuller consideration of the social context in jobs decision-making should, therefore, include identifying the interests, concerns, expectations, and the potentially competing imperatives as well as the underlying issues of these external stakeholders specific to the project’s social context.

3 Institutional jobs decision-making influences

3.1 Introduction

Chapter Two identified a broad range of external institutions and drivers that influence the consideration of the social context in resource project jobs decision-making. This chapter builds on that discussion to understand from the literature the institutional factors that lead companies to embed CSR in business practices. Given the focus on understanding institutions, institutional theory was selected as a starting point to assist in framing the analysis, consistent with Project Task Two:

- Project Task Two: Present a theoretical approach that can assist in 'framing' the analysis.

The chapter starts by presenting the theoretical components of institutional theory. The institutional field for jobs decision-making is then defined. The concepts of CSR, social licence to operate, and shared value are then connected to the theory. This theory and these concepts guide the literature review, formation of the research question, research methodology, and analytical framework as developed in subsequent chapters.

3.2 Institutional theory and the connection with CSR

Institutional theory is relevant to this project as it "examines the role of social influence and pressures for social conformity in shaping organisations' actions" (Oliver 1997, p. 698). It recognises that an organisation's "social behaviour and associated resources are anchored in rule systems and cultural schema" (Scott 2008a, p. 9) as a basis for attaining organisational legitimacy (Palthe 2014). Institutions are, therefore,

> *[s]ocial structures that have attained a high degree of resilience [and are] composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life. (Scott 2008b)*

Under the theory, the regulatory environment incorporates rule-setting, policies, and monitoring and sanctioning activities. Normative elements emphasise social obligation as embedded prescriptive, and obligatory work norms, habits, and ethics. Cultural-cognitive

elements focus on shared values, beliefs, assumptions, understanding, and framing to attain meaning. Table 2 (below), reproduced from Palthe (2014, p. 61) provides additional explanation of the three institutional elements:

Table 2 Regulative, normative, and cultural-cognitive elements

	Regulative	Normative	Cultural-cognitive
Legitimacy	Legal systems	Moral and ethical systems	Cultural systems
Central rudiments	Policies and rules	Work roles, habits, and norms	Values, beliefs, and assumptions
System change drivers	Legal obligation	Moral obligation	Change values are internalised
System change sustainers	Fear and coercion	Duty and responsibility	Social identity and personal desire
Behavioural reasoning	'Have to'	'Ought to'	'Want to'

Over the last 30 years, researchers have progressively developed the theory in order to understand institutional change and the influence of these key elements in both reinforcing and changing organisational behaviour (Campbell 2004, 2007; DiMaggio and Powell 1983; Greenwood and Hinings 1996; Scott 2008a, 2008b, 2010, p. 5).

A small but growing body of scholars have studied company CSR practice using institutional theory. Bondy, Moon, and Matten (2012) provide an overview of the research agenda that until recently focused on the assessment of macro pressures to adopt CSR as well as evidence of its institutionalisation. CSR research by Haberberg (2010) (used later in this chapter) considers the difference in the institutionalisation of CSR compared with other business areas. Athanasopoulou and Selsky (2015) call for more focus on the internal organisational social context in CSR studies across organisational levels, with institutional theory assisting to inform conceptual analysis. The authors argue that CSR "cannot be studied in conceptual silos," and that researchers should analyse the intersecting social contexts of the business, shareholders and society in institutional studies (Athanasopoulou and Selsky 2015, p. 352). Fernando and Lawrence (2014) similarly present an argument as to why CSR analysis should combine legitimacy theory, institutional theory, and stakeholder theory.

While the macro level continues to be the focus, a growing body of research is assessing the institutionalisation of CSR across organisational levels (Marquis, Glynn and Davis 2007). Marquis and Battilana (2009) emphasise the importance of the regulative, normative and cultural-cognitive influence of the local community level on organisations. The authors provide examples of regulative elements (such as infrastructure provision and taxation incentives). Normative elements include the proximity of the organisation to the local community, the presence of local networks and the prevailing social class relations in the locality. Communities also have deeper frames of cultural-cognitive reference based on differences in cultural beliefs (e.g., patrilineal and matrilineal societies and the traditions of land ownership), history (e.g., tribal relations and clans) and demography (e.g., remoteness, climate and distance) (Marquis and Battilana 2009). Jamali and Neville (2011) assessed the pressures of standardisation and localisation to adopt CSR for MNC foreign-owned Lebanese subsidiaries and local SME firms. The authors noted that MNC subsidiaries (similar to a resource project) experience 'institutional duality' through pressures to confirm to the parent company's requirements and that of the specific location (p. 604).

Only limited research has, however, concentrated on the resource sector, and it has emphasised company disclosures and recommendations to attain local legitimacy through CSR programs (Dashwood 2014; Gifford and Kestler 2008; Gifford, Kestler and Anand 2010). Over the last few years, there has been a growing call for a more critical assessment of CSR activities in daily practice to understand the outcomes and implications of these activities for society (Banerjee 2008, p. 167; Devinney 2009).

A recent body of research by Bice (2015; 2016) explored the relevance and usefulness of institutional theory to the resource sector. Bice (2015) concludes that the application of the theory, to the industry, can assist to draw out the potentially competing and complex interplay of pressures that shape the form that CSR takes across multiple organisational levels (p. 14). Bice (2015) emphasises that the current use of a mix of segregated theories to assess and understand CSR practice in the resource sector can compound the lack of coherency around the term and contribute to a piecemeal understanding of the issues and drivers (p. 4). Bice (2016) identifies that social performance in the resource sector is "[t]oo frequently characterised by strong, idealised policies which are decoupled from practice" (p. 172) (a concept discussed in more detail below). Bice (2016) recommends that a social mechanism-based framework incorporating institutional theory could be used to analyse

CSR across the resource sector. This view is consistent with that of Athanasopoulou and Selsky (2015) and Fernando and Lawrence (2014) (discussed above). Nevertheless, research connecting CSR, the social context, jobs decision-making, and the resource sector has not been evident in institutional theory literature.

Institutional theorists believe that organisations strive to conform to the expectations of society seeking support and legitimacy to enhance the firm's survival (DiMaggio and Powell 1983; Oliver 1991; Scott 1987, p. 498). For CSR, companies will demonstrate this approach by adopting the practices of similar organisations that "society or particularly powerful groups consider as normal" (Fernando and Lawrence 2014, p. 166). Campbell (2007, p. 962) concludes that

> *[c]orporations are more likely to act in socially responsible ways the more they encounter strong state regulation, collective industrial self-regulation, NGOs and other independent organisations that monitor them, and a normative institutional environment that encourages socially responsible behaviour. Moreover, socially responsible behaviour is more likely to occur to the extent that firms belong to industrial or employee associations and engage in institutionalised dialogue with stakeholders.*

The propositions put forward by Campbell (2007) can be tested to assess whether they also apply to the consideration of the social context in jobs decision-making.

3.2.1 Institutional theory in more detail

This section provides a more detailed exploration of the regulative, normative, and cultural-cognitive elements of institutional theory as well as the institutional pressures that drive and shape company behaviour. The assessment draws from a wider body of literature than the CSR research agenda and uses practical resource sector examples to illustrate the connection between institutional theory and CSR.

Scholars have found that the regulative element has the potential to influence behaviour more rapidly than the normative and cultural-cognitive elements but is also more superficial (Evans 2004). When the other components support the regulative element, behaviour becomes more embedded in practice (Roland 2004). Without these other elements, behaviour can become decoupled from the rules and formal structures as a result of activities such as organisational gaming (Meyer and Rowan 1977). Long-term, continuous,

and incremental change occurs via pressure from the normative and cultural-cognitive elements (Palthe 2014). Researchers have identified that it is the cultural-cognitive frameworks that provide the underlying basis for how fully companies embed the normative and regulative elements (Scott 2008a, p. 429, 2010, p. 7).

Consistent with the importance of cultural-cognitive frameworks, research has identified that company personnel play a pivotal role in the continuation and change of institutions. Incumbents and challengers within companies will use their power and social skills to collaborate or compete with and influence different aspects of the institutional field (Bondy, Moon and Matten 2012, p. 7). Institutions, therefore, have the potential to be hotly contested political arenas, with changes being the outcome of negotiations among the respective parties (Fiss, Kennedy and Davis 2012). Bondy, Moon, and Matten (2012, p. 8) surmised that actors in the CSR institutional field would be lively and decisive, given that CSR is contentious with diverse views on where CSR ends and individual or governmental responsibility begins. Each element of institutional theory will differ in influence in supporting social order within organisations. It is, therefore, important for researchers to identify the element at play and to what extent and how it influences or undercuts the others (Scott 2008a, p. 429).

Institutional theorists are particularly interested in how the institutionalisation of structures and processes, supported by the diffusion of general knowledge and understanding and pressures for isomorphism, occurs over time, leading firms to display a tendency for homogeneity (DiMaggio and Powell 1983; Oliver 1997; Scott 1987). Isomorphism can be coercive, mimetic, or normative (DiMaggio and Powell 1983). Research at the organisational level has confirmed that organisations in the field can demonstrate high coherence, becoming more similar in response to these isomorphic pressures (DiMaggio and Powell 1983; Scott 2010, p. 12).

Government (acting through the regulatory environment), shareholders, professional associations, and external stakeholders, exert vocal, powerful, and critical coercive isomorphic pressure on firms at the managerial level to conform to socially acceptable behaviour (Fernando and Lawrence 2014; Scott 1995). This suasion is more likely to occur at the overall industry or institutional field level leading to the homogeneity of practice. As an example, Deegan (2002), in analysing corporate disclosures, confirmed that voluntary

company reporting practices in the same industry often come into alignment with expectations and demands of powerful stakeholders through coercion.

Mimetic isomorphism refers to companies imitating the practices of others, including the sector as a whole, to gain legitimacy (Fernando and Lawrence 2014). In a regulatory approvals environment with high uncertainty (DiMaggio and Powell 1983), coupled with external expectations, resource sector projects are putting more emphasis on gaining a social licence to operate. A focus on the attainment of a social licence to operate in the resource sector is an example of firms mimicking each other in their proclamations to enhance their legitimacy. A social licence to operate exists when a project has secured both the ongoing approval of its host community and the broader acceptance of its principal stakeholders (Prno and Slocombe 2012). It recognises the social legitimacy and credibility of the project, and the presence (or absence) of trust by the community and stakeholders (Thompson and Boutillier 2014). The concept is interconnected with CSR and is thought to have emerged in the extractives sector connected to the broader debate about the relationship between business and society (Wilson 2016). Similar to CSR, the term 'social licence to operate' does not have a clear definition and lacks clarity on the conditions required to demonstrate the attainment of the licence in practice (Wilson 2016). The concept has also been criticised for being too focused on business risks rather than collaboration with society.

Normative isomorphism, according to DiMaggio and Powell (1983), relates to the pressures asserted from shared values to adopt institutional practices. Membership of the International Council on Mining and Minerals (ICMM) and adherence to their Sustainable Development Framework and IPIECA[3] (the global oil and gas industry association for environmental and social issues) provide examples of normative pressures exerted on the main players in the industry. These institutions can play a role of conditional morality by exerting normative isomorphism on companies to align on common issues (Kolk and van Tulder 2006). An example is IPIECA's local content strategy (2011). This publication details technical considerations for jobs decision-making regarding employment policies and education, skills and training, and the need to assess community capacity and to engage with stakeholders. The publication does not, however, emphasise the social context risks, impacts and

[3] The acronym IPIECA originally meant the International Petroleum Industry Environmental Conservation Association. The full title ceased to be used from 2002 onwards in recognition that it did not reflect the depth of the organisation's work. The association is now known as IPIECA, the global oil and gas industry association for environmental and social issues.

opportunities that can intersect with local content decisions or how company approaches can contribute to a social licence to operate. An interesting viewpoint from Kolk and van Tulder (2006, p. 798) is that civil society expectations and pressure can put a floor on the minimum CSR expected, whereas the industry sector and competitors can put a ceiling on CSR related to development and poverty alleviation.

Another example of macro normative isomorphic pressure (as well as internal regulative elements) is the widespread establishment of company social performance standards and project investment criteria that increasingly incorporate social matters at a high level. Many companies make their internal social performance requirements public[4] and maintain confidentiality in areas of higher commercial sensitivity such as those relating to the selection, definition, and execution of projects. At the corporate macro level, companies sign up to international principles and conventions and make voluntary job commitments. Some publicly acknowledge that "mining companies have a critical role to play in job creation outside the sectors related to mining and minerals" (Carroll 2013, p. 21), providing further evidence of normative macro isomorphic pressure.

Companies can, however, move towards similar proclamations and external appearances of prescribed behaviour but do not necessarily comply with these expectations internally. This phenomenon is an example of 'decoupling' where the "formal [public] organisation structure or practice is different from actual [internal] practice" (Dillard, Rigsby and Goodman 2004, p. 510). An example of decoupling not directly related to institutional theory is where companies make public CSR proclamations but do not give sufficient attention to ways that their practices can avoid corporate social irresponsibility (Campbell 2007; Lange and Washburn 2012; Lin-Hi and Müller 2013; Murphy and Schlegelmilch 2013). The paradigm for companies is that they are typically acknowledged publicly for their good CSR behaviour, whereas avoiding bad conduct can be taken for granted and unseen, or reflect usual law-abiding behaviour (Lin-Hi and Müller 2013). Another instance is where companies promote a local procurement approach externally while shortening their supply chains internally, employing internal practices that make it difficult to procure locally.

[4] See the selection of Rio Tinto policies, standards and guidance pertaining to communities at Rio Tinto (2013a).

Campbell (2007, p. 950) argues that it is important to distinguish between rhetorical and symbolic framing and substantive action in analysing the institutionalisation of CSR and areas of convergence and divergence. Without this distinction, the institutionalisation of CSR behaviour could be overstated, with evidence of whitewashing and hollow claims used to demonstrate cultural entrenchment of conduct. Turning again to the concept of 'social licence to operate', some firms have genuinely embedded it in engagement and development approaches (Bridge 2004; Dashwood and Puplampu 2010; Owen and Kemp 2013, p. 30; Schiavi and Solomon 2006). For others, the focus can still be largely rhetorical and used to reduce overt opposition to secure project approvals (providing an example of rhetorical and symbolic framing) (Farrell, Hamann and Mackres 2012; Owen and Kemp 2013, p. 34; Slack 2012).

Since the 1990s, institutional scholars have also focused on instances of institutional divergence. This research has addressed situations of contestability in the environment, evidence of varying exposure to institutional influences due to the location or the nature of the organisation, and cases where firms have implemented strategic responses that differ from the industry norm (Dobbin et al. 1988; Oliver 1991; Thornton 2002). An example of institutional divergence, although not one explicitly connected to institutional theory, is the practices of some MNCs in Africa compared to in their western headquarter locations. Researchers have argued that some resource firms are engaging in approaches in Africa that they would not support in developed economies where there is a stronger combination of regulatory mechanisms and coercive activist pressure for more responsible practices (Banerjee 2008; Orock 2006, 2013).

3.3 CSR institutionalisation in company practices

The extent to which operational changes become embedded across the industry as evidenced by individual company behaviour is referred to as institutionalisation (Haberberg et al. 2010). Tolbert and Zucker (1999) identified three phases of institutionalisation within individual organisations of habitualisation, objectification, and sedimentation that have since been comprehensively examined by many theorists as outlined by Haberberg et al. (2010). Habitualisation refers to actions of the early adopters of practice at the individual firm level to deal with a particular opportunity or problem. Objectification occurs when other companies see the practice as having perceived and/or real value and spreads by imitation to other businesses. The final stage is sedimentation where the practice is universal and sustained

for a long time in the industry. Tolbert and Zucker (1999) identified that these phases might not proceed in a linear way at all or even at the same stages across the levels of the organisation. The progression to sedimentation where the practice becomes the rules of the game is often affected by conflict between the three phases relating to endogenous (economic and instrumental) and exogenous issues (activism, social benefits, media and industry practices).

Haberberg et al. (2010) found that, in practice, ingraining CSR over these phases follows a reverse path to new approaches across organisational business activities. CSR early adopters typically draw their motivation from outside the firm; that is, from exogenous pressures such as social activism (Haberberg et al. 2010, p. 369). This situation can result in the hasty adoption of practices "without due regard for the full … social consequences…" that reinforces the potential for whitewashing, as previously mentioned (Haberberg et al. 2010, p. 375). By contrast, early adoption of new practices in other organisational areas "is largely driven by an instrumental desire to improve performance, a rational maximisation approach" focused on endogenous pressures (Haberberg et al. 2010, p. 369).

During the habitualisation phase, CSR practice tends to have limited instrumental benefits and instead focuses on public rather than private needs and benefits (Austin, Stevenson and Wei-Skillern 2006; Emerson 2006). Just before the objectification phase companies typically discover economic or other instrumental benefits. As the combined social and economic benefits of CSR practices become more evident, company approaches start to become more legitimate than during the earlier habitualisation phase. The decision to adopt CSR practices is then more unconscious and based on consideration of legitimate social benefit (Suchman 1995). When the economic case for CSR becomes better defined, the evolution across the phases indicates that it is likely to be more widely adopted within companies (Haberberg et al. 2010, p. 371). Issues such as intense media involvement, social activism and public concern can create a "coercive cascade effect" that can short-circuit the path and pace that organisations adopt CSR (Haberberg et al. 2010, p. 372). Figure 1 summarises the phases of the institutionalisation of CSR.

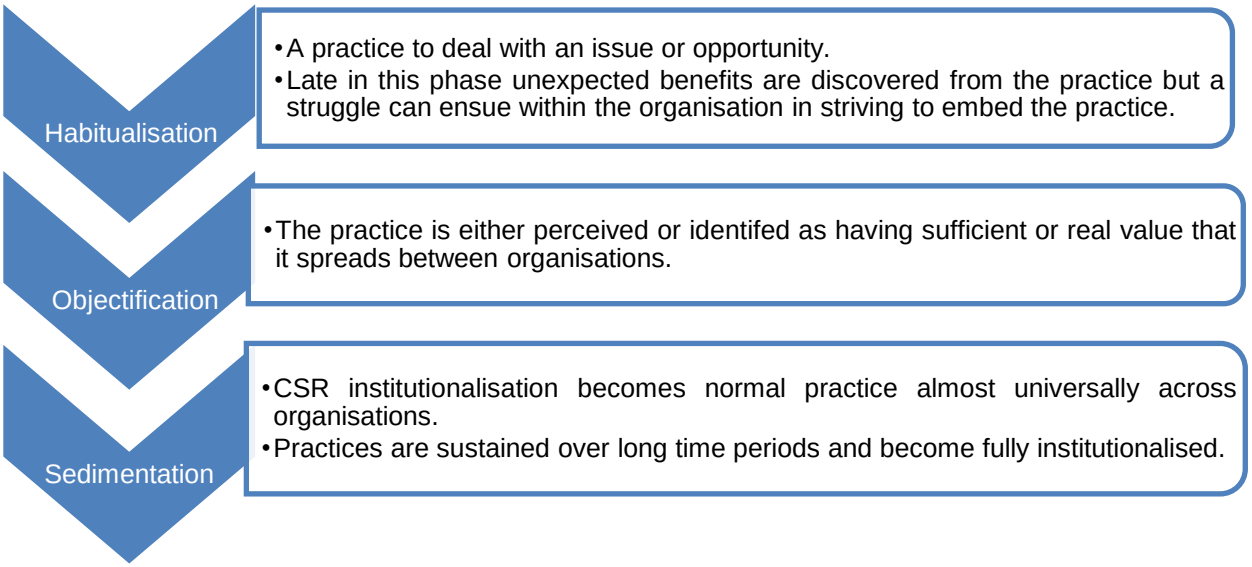


Figure 1 CSR institutionalisation phases, Haberberg et al. 2010 (pp. 368-372)

3.4 The institutional field

The institutional field for large-scale resource projects comprises a mix of complex internal organisational structures and external institutional environments. MNC resource companies can span markets, products, and cultures, meaning that power structures are decentralised and also ambiguous with complex interdependencies from the group level as a whole, through to the board, subsidiaries, departments, functions[5], personnel, and on specific mandates (Dörrenbächer and Geppert 2006). These entities within themselves contain "networks of embedded social relations" (Dicken and Thrift 1992, pp. 202 - 3; Taylor and Asheim 2001; Yeung 2009). Project decision-making occurs in this setting, drawing together organisational levels, functions, teams, the asset where the project resides, and business units. These projects often involve joint venture partners who contribute their cultures, organisational structures, and operating standards that add to the complexity of the project environment. Increasingly, the delivery of approvals and engineering, procurement, and construction management services (EPCM) are being devolved to separate external entities. While the owner assumes the risk for the project and the contractual relationship with suppliers under this model, the EPCM contractor acts as the owner's representative and manages all contracts and the construction process under the EPCM name. EPC contracts are then generally awarded to lead suppliers to deliver packages of work (such as the construction of a pipeline for oil and gas or a power station).

[5] Functions involved in project decision-making from the main asset can include project management, human resources, external affairs and community relations as examples (covered in more detail in Chapter Four).

These micro, meso, and macro organisational levels combine with regulators, financiers and investors, industry associations, societal elements, key suppliers, consumers, and other organisations that produce similar products, to form the 'institutional field' where large-scale project decision-making operates (Figure 2) (DiMaggio and Powell 1983, p. 147). Chapter Four further elaborates on the main institutional field stakeholders.

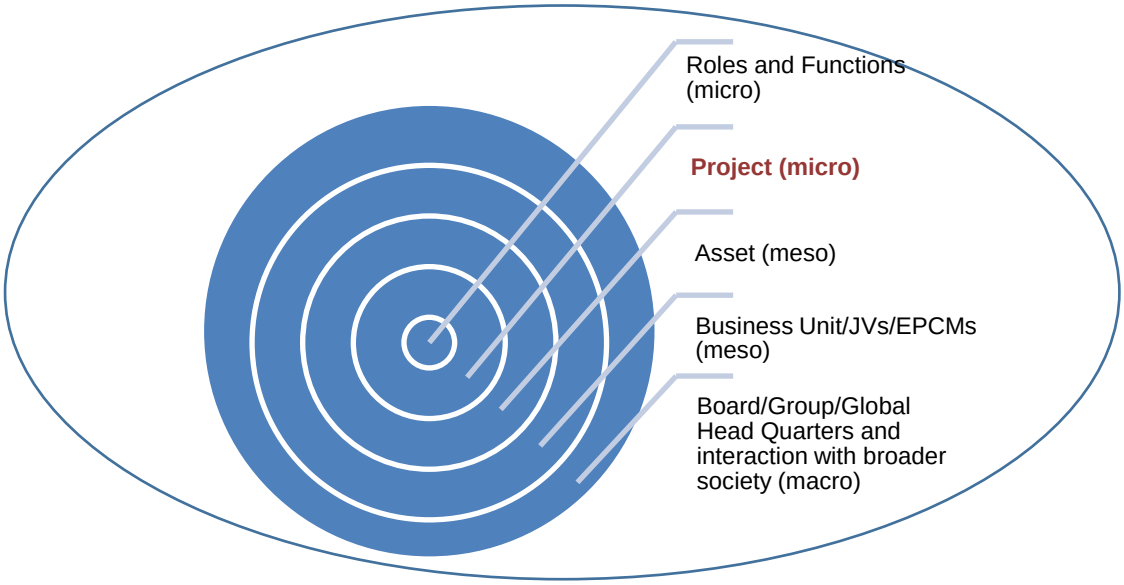


Figure 2 Organisational levels and the institutional field

3.5 The value chain and competitive context

Jobs decision-making provides a useful vehicle for better understanding the institutionalisation of CSR in business practice, given that it is a core human resource management component of an organisation's value chain. The value chain refers to the primary and supporting activities that a firm undertakes to deliver its products or services to markets and intersects with the competitive context (Porter 2001). According to Porter and Kramer (2006), the competitive context consists of business inputs, rules, and incentives relating to competition, the scale of local demand, and the availability of supporting industries. External social factors (local, regional and national) are an integral part of the competitive context (Porter and Kramer 2006).

The intersection of organisation and societal imperatives in jobs decision-making can cut across these competitive contexts in several areas. The first area is as a business input. Projects and operations require access to a sufficient quantity and quality of labour with the

appropriate skills, education and cultural attributes. Companies must also decide on the workforce model incorporating the structure (resident or non-resident), roles (permanent employees and contractors) and associated infrastructure (accommodation and site access). The worker local content and participation catchment zone (local, regional, national and international) will also be defined for the project. Rules and incentives relating to competition in terms of local content and participation regulations, benefit agreements, taxation incentives to hire locally, industrial relations and human rights legislation, and government expectations influence company approaches to the determination of the business inputs. The scale of local demand for jobs will influence the business inputs, with companies assessing whether local communities want to work with the project as well as the likely impact that the demand for workers for the project will have on other industry sectors. Another matter which companies consider is the availability of supporting industries to supply the skills, education and training services required to build a local workforce, as well as the supporting social infrastructure to attract and retain a workforce to the area (Porter and Kramer 2006, p. 84).

Porter and Kramer (2011) argue that companies see profit narrowly, trapped in an out-dated mode of value creation, a view that can also relate to the institutionalisation of CSR. This situation can see companies ignore broader factors influencing longer-term success (such as political and economic drivers and their responses as discussed in Chapter Two), while, focusing instead on the attainment of short-term financial performance objectives. This situation leads to the hasty adoption of practices mentioned above, where companies implement CSR initiatives in response to exogenous pressures to minimise short-term financial loss rather than as a more strategic approach.

Porter and Kramer (2011) advocate the principle of 'shared value' through "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates" (p. 6). The recognition underpinning shared value is that CSR efforts can often pit business against society, while opportunities for shared value between the two entities go unrecognised as a source of "opportunity, innovation and competitive advantage" (Porter and Kramer 2006, p. 80). A significant gap can, therefore, exist between CSR in theory and its discourse, the local context, and company practice, providing another example of rhetorical and symbolic institutional framing (Gilberthorpe and Banks 2012; Murphy and

Schlegelmilch 2013). Porter and Kramer (2011) recommend that shared value should supersede CSR in guiding community development and investments. Following the analysis of CSR research and the viewpoint expressed by Porter and Kramer (2011), this study adopts the position that CSR continues to have an important role (as elaborated below). Shared value, therefore, has the potential to represent a form of strategic CSR institutionalisation where "value chain practices and investments integrate fully, [and] CSR becomes hard to distinguish from the day-to-day business of the company" (Porter and Kramer 2006, p. 89).

The main ways that companies create shared value opportunities are through reconceiving products and markets, redefining productivity in the value chain, and enabling local cluster development (Porter 2001, p. 5). Innovation and technology transfer (supporting the development of technological linkages) and community development that meets company and community priorities (such as education and training initiatives for a skilled workforce) are other examples. The two strategy frameworks of the value chain and competitive context underpin the concept of shared value. Porter and Kramer (2006, p. 89) suggest that companies can use the value chain to examine the positive and negative impacts of business activities through an assessment of inside-out linkages. The competitive context can assist companies to understand the outside-in linkages, those external factors that impact on internal improvements to productivity and strategy execution (Porter and Kramer 2006, p. 89). Fuller consideration of the social context and the integration with the value chain and competitive context during the project design and approvals phases can support the leveraging of company resources and capabilities to both benefit society and the organisation (Porter and Kramer 2006, p. 89).

Shared value, however, has its critics who acknowledge its broad industry acceptance but argue that "it is unoriginal, it ignores the tensions between social and economic goals, it is naïve about the challenges of business compliance, and is based on a shallow conception of the role of the corporation in society" (Crane et al. 2014, p. 131). Crane et al. (2014) argue that the concept alone provides "a purely efficiency-oriented response to a normative institutional issue" (p. 141). The concept fails to provide guidance on how to deal with trade-offs and dilemmas in decision-making between economic and social value creation and negative impacts on stakeholders (p. 136). Critics believe that the recent growth in CSR institutional theory research explicitly relates to the connection between a firm's economic

goals and the rules, expectations and norms of society that shape company behaviour (Brammer, Jackson and Matten 2012). Dembek, Singh and Bhakoo (2016) undertook a comprehensive review of shared value literature concluding that it is presently a 'managerial buzzword' with articles mostly failing to identify the social needs that require addressing, and in what circumstances, to constitute shared value. They call for a systems approach to the identification and consideration of unmet human needs as well as performance criteria to demonstrate the attainment of shared value. These critics also believe that the concept does not give sufficient acknowledgement to prior theories and related concepts such as innovation, instrumental stakeholder theory, social innovation, Bottom of the Pyramid, and CSR (Brammer, Jackson and Matten 2012; Dembek, Singh and Bhakoo 2016).

The merging of these established and accepted concepts within the resource sector of shared value, CSR and social licence to operate addresses many of the concerns about the individual terms by critics. Combining the concepts to assess the consideration of the social context in jobs decision-making draws together benefits, issues, needs, stakeholders, legitimacy, economic and social imperatives, business risks and trade-offs. CSR is concerned with the up-front pre-emptive and proactive consideration of material social risks and issues linked to company business decisions and activities. This approach recognises that harm mitigation, for jobs decision-making, needs to be a convergence of strategy with operational action, considered as a form of responsive CSR related to the value chain (Porter and Kramer 2006, p. 88). CSR also assesses and articulates project benefits for host communities and society. Shared value emphasises the development and progression of a targeted range of strategic initiatives leveraging the organisation's value chain, resources and competitive context for mutual company and societal benefit (Porter and Kramer 2011, p. 5). Social licence to operate then focuses on legitimacy through two-way dialogue and collaboration with affected communities to identify and understand CSR and shared value priorities thereby demonstrating good corporate citizenship in practice, as well as connecting community concerns and development priorities with business risk.

Consistent consideration of issues, benefits, and shared value underpinned by understanding stakeholder "concerns and the cultural context shaping their expectations" will contribute to organisational legitimacy (Bustamante 2011, p. 9). Organisational legitimacy is "the generalised perception or assumption that actions of an entity are desirable, proper, or appropriate with some socially constructed system of norms, values,

beliefs and definitions" (Suchman 1995, p. 9). For this study, institutional theory, therefore, provides the umbrella theory to draw together these components.

3.6 Conclusion

This chapter identified the suitability of the application of institutional theory to the analysis of how companies consider the social context in jobs decision-making to assist with 'framing' the analysis, thereby addressing Project Task Two. Existing research could not be located on the application of institutional theory to jobs decision-making or the connection to CSR, shared value, or attaining a social licence to operate in the resource sector. The literature indicated that the process of institutionalisation could be fast in response to extreme coercive pressures or emerge more slowly. Cultural-cognitive aspects, the roles and power of personnel within companies, the organisational field, and society all influence the pace of institutionalisation.

This chapter identified that jobs decision-making involves the business (value chain) and social contexts (part of the competitive context) and is situated within an institutional field comprising the external and internal contexts. This knowledge indicates that fuller consideration of the social context in jobs decision-making requires the connection of the business case with the social context. Institutional theory can be used progressively to draw together the connection between the external, institutional and internal contexts in order to better understand the research problem and to address the research question. The application of the theory to this research problem can be used across all of the chapters to frame the critical analysis of the 'what, why and how' of the research problem. The theory can, therefore, assist in gaining an understanding of how normative, regulative and cultural-cognitive elements across the macro, meso and micro institutional levels drive or impede companies to institutionalise the social context in their large-scale project decision-making. The theory can also be used to frame the rationale for why companies should give fuller consideration to the social context as well as recommendations for how to do this in practice. The concepts of CSR, shared value, and social licence to operate can also inform best practice jobs decision-making, given their currency in the resource sector. The terms can provide a framework to draw together the consideration of the social context and employment benefits, issues, needs, stakeholders, legitimacy, economic and social imperatives, and trade-offs as the study progresses.

The external drivers having been explored in Chapter Two and the institutional setting in this chapter, the next chapter proceeds from this foundation to examine in more detail the internal business context for jobs decision-making.

4 Internal jobs decision-making influences

4.1 Introduction

This chapter situates jobs decision-making within the complex internal project environment (Orr and Scott 2008), drawing on examples from the resource sector and beyond, sourced from peer-reviewed and popular literature. It covers the importance of executives focusing on strategic value objectives during the project decision and approvals phases and incorporating the social context and stakeholder views. Strategic value includes the delivery of new capabilities, markets, business, and fulfilment of strategic objectives of the parent organisation (Eweje, Turner and Müller 2012; Lester 2014b; Samset 2013). As indicated, the current study focuses on the design and approvals phases, given the importance of jobs decision-making to the value chain (covered in Chapter Three) and strategic project value. Resource companies set the workforce profile during these phases. This chapter also assesses the role of the SIA in informing local employment outcomes and examines internal drivers that influence jobs decision-making during these phases. Chapters Two, Three, and Four provide the background context and imperative for the research question presented in Chapter One and addresses Project Task One:

- Project Task One: Provide a historical and contemporary perspective on jobs decision-making and the connection to the social and business context.

4.2 Front-end planning: project decision-making

Large-scale projects are often unpredictable, turbulent, and non-linear in time and scope, but all share a basic temporal structure (Eweje, Turner and Müller 2012; Williams and Samset 2010). The lifecycle for resource projects transitions through exploration, project development, construction, ramp up of operations, stable operations, wind-down, decommissioning, closure and post-closure. Tollgates between the phases determine whether the project proceeds to the next step. The decision made on the options to study (agreed in the order of magnitude study during the mid-project design phase), is of critical importance to establishing a viable business case, underpinning the long-term success or failure of the project (Williams, Samset and Sunnevåg 2009). This phase should focus on attaining a business case that optimises strategic long-term project value (Eweje, Turner and Müller 2012; Lester 2014b; Samset 2013). Researchers identify that executives at this

time require more up-front emphasis on the societal and economic aspects of the options and business case under study (Samset 2013, p. 14); whereas tactical project objectives of delivering the project on time, cost, and quality should be given lesser weighting during the project design and the early part of the approvals phase (Morris 2011; Samset 2013). Tactical issues become more pressing during the pre-feasibility and feasibility phases and through to construction (Samset 2013, p. 13). Figure 3 below summarises the lifecycle from the project development phase through to operations.

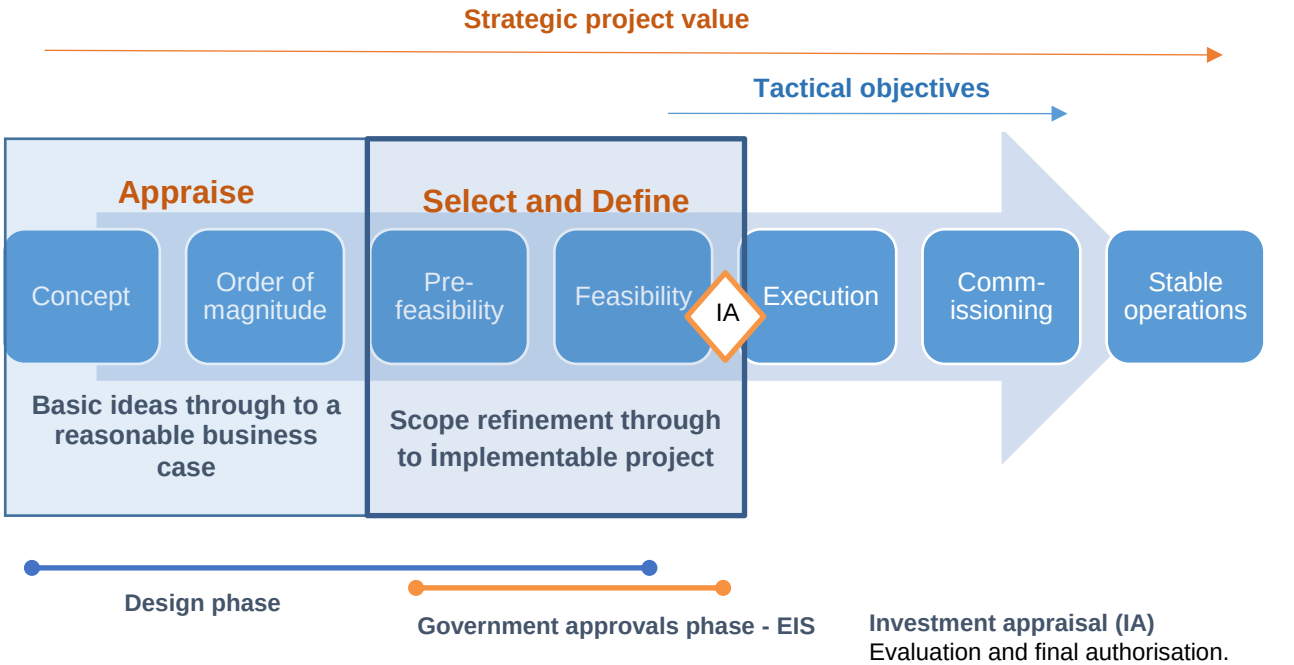


Figure 3 Project lifecycle phases[6]

Miller and Lessard (2000) reviewed 60 large-scale infrastructure projects, finding that decision-makers who took this broader approach and spent more time during the project design phase to understand social matters and stakeholder issues achieved stronger longer-term results. The approach led to considerable cost reductions, better management of risks, and higher community acceptance. The Project Management Institute Guide (2013) reinforces that it is easier to influence project design, taking into account differing views of

[6] Adapted from Project Management Institute (2013), Eweje, Turner and Müller (2012), Lester (2014c) and Chanmeka et al. (2012).

stakeholders, in early phases without incurring significant costs and much less so as the project progresses.

Companies can generally develop scalable, technically and financially feasible projects but differ in their ability to take a longer-term view that incorporates the social context (Corder, McLellan and Green 2012). Social risks and issues can, however, be intangible and not easily expressed using conventional financial tools, making it problematic to include them in traditional project decision-making and risk assessment models (Sanchez and Robert 2010). Details on the potential impact of social risks and issues can also be uncertain (Lester 2014a, p. 31). People in technical roles also have a tendency to take a normative, linear, and risk-averse approach to decision-making and may have less ability to consider areas where they have limited experience or where there is considerable uncertainty (Aharoni, Tihanyi and Connelly 2011; Eweje, Turner and Müller 2012; Kameda and Davis 1990; Mackie et al. 2007; Miller and Chen 2004).

Project managers and teams can focus on what they consider as the critical path, potentially not giving enough attention to social risk areas where there is considerable ambiguity (Aharoni, Tihanyi and Connelly 2011; Kameda and Davis 1990; Miller and Chen 2004). Often project managers assume that their decision-making capabilities are above average and, therefore, are not particularly concerned with improving their skills or the quality of decisions (Eweje, Turner and Müller 2012; Goodwin and Wright 2010; Virine and Trumper 2008). Decision-makers may, therefore, not take social risks seriously, which in turn influences the extent to which they engage with stakeholders and undertake additional analysis to consider risks and uncertainty (Atkinson, Crawford and Ward 2006; Perminova, Gustafsson and Wikström 2008; Sanderson 2012). Eweje, Turner and Müller (2012) identified that the attitude of project directors and managers regarding their project decision-making could potentially result in an erroneous judgement, whereas they may have made a more holistic decision if they had sought more robust information. Circumstances and context can also at times lead to decision-makers overriding or inconsistently applying corporate values in the execution of projects due to the often intense executive pressures relating to cost and time (Eweje, Turner and Müller 2012; Irwin and Baron 2001).

The views, perceptions, values, and assumptions of different institutional stakeholders can, however, dwarf project technical complexities (Roth and Senge 1996; Williams and Samset

2010, p. 41). Typically, projects at the front-end are poorly structured, not aligned with overarching corporate strategies and objectives, with stakeholders having conflicting aims (Samset 2013, p. 18). Yet, it is “where a project’s future problems are often seeded and where opportunities for improving value lie” (Morris 2011, p. 16). The project management literature suggests that good communication with the principal stakeholders can assist to define strategic value during the design and approvals phase as well as to manage ongoing project uncertainty over the lifecycle (Barclay and Osei-Bryson 2009; Eweje, Turner and Müller 2012; Martinsuo and Killen 2014). Projects, therefore, require adaptive capacity during the design and approvals phase, to enable consideration of and responsiveness to changes in the context, expectations, and perceptions of stakeholders (Giezen, Bertolini and Salet 2015, p. 1001).

Table 3 summarises the concerns of key institutional stakeholders; that is, the people, groups, or organisations that could impact on or be affected by and influence the project and the attainment of long-term project value (Eweje, Turner and Müller 2012; Project Management Institute 2013, p. 391). These stakeholders may have different perspectives on priorities, interest levels, and understandings of operational and financial aspects over different timescales, and they may come from diverse cultures and locations (Eweje, Turner and Müller 2012; Hällgren and Söderholm 2010; Lester 2014b; Turner and Zolin 2012). The most influential stakeholders “represent the institutional and societal goals for the project” (Martinsuo and Killen 2014, p. 61), with whom companies should be seeking to gain support and legitimacy in accordance with institutional theory.

Table 3 Key stakeholder concerns

Key stakeholder category	Short-term concerns	Long-term concerns
Owner and investors	Delivery on time, cost, features, performance, profit, and reputation.	Profit, performance, reputation, new markets, technology, competence, and capability.
Project sponsors and executives	Delivery on time, cost, features, and performance. Maintaining their reputation in the company and relationship with the owners/investors.	Profit, performance, reputation, new markets, technology, competence, and capability.
Project financiers	Delivery against performance requirements. For DFIs and multinational banks, with local content requirements often included.	Delivery against performance requirements. For DFIs, sustained long-term benefits, productivity, and knowledge transfer opportunities to the host government/industry and community.

Key stakeholder category	Short-term concerns	Long-term concerns
Project managers and project team	Delivery on time, cost, features, and performance. Learning from the project, future career moves, and personal wellbeing. The reputation of their work and maintenance of relationships and whether they get repeat work.	
Senior supplier (EPCM)	Delivery on time, cost, features, and performance and ensuring a profit. Safety and risk record of the project.	How the success of the project can increase their chances of securing future projects.
Community	Environmental and social impacts and benefits including jobs and local business opportunities, transparency, genuine engagement, accountability.	Environmental and social impacts and benefits including jobs and local business opportunities, genuine engagement.
Government (local, regional, state, federal)	FDI, royalties, responsible stewardship and management of impacts, beneficiation, and contributions to services and infrastructure.	Growth – export, GDP, jobs, economic and social impacts; royalties, responsible stewardship and management of impacts, beneficiation, sustainable livelihoods, contributions to services and infrastructure, reduced country/local vulnerability.

Note: Adapted from research presented in Turner and Zolin (2012).

This section has highlighted the importance of front-end loading of projects to enable the delivery of strategic value as well as the imperative for adaptive capacity and agility in responding to project and stakeholder complexities in a way that is consistent with the business strategy. Key jobs decisions are mostly made during these early design and approvals phases. A recurring theme in the literature is that a more holistic and systems-thinking approach to the social context in project decision-making could support companies to better balance strategic and tactical imperatives (Hind, Wilson and Lenssen 2009; Kakabadse, Kakabadse and Lee-Davies 2009). The analysis now turns to consider jobs decision-making during these phases.

4.3 Front-end planning: jobs decision-making

Dickie and Dwyer (2011) whose work is situated in the strategic HR literature stream, recommend that resource companies should set the HR strategy and workforce plans within the context of the overall business strategy. Some researchers call for HR personnel to be more responsive to the external business environment, given the regulatory, political, economic and technological influences and the project temporal and social contexts in workforce planning (Kramar 1992, 2013; Nankervis, Compton and Baird 2008). The position of these HR researchers aligns with the recommendations from the business and project

management literature (discussed in Chapter Three and above). This literature recognises that jobs decision-making is a core part of an organisation's value chain and, therefore, of strategic project value.

In reality, technical, functional, or project managers often make jobs decisions during the early resource project phases rather than executives with an appreciation of the strategic context (Peek et al. 2008). This situation can contribute to the social context receiving too little attention in the lead-up to the jobs decision. During these early phases, the HR function might also play a limited role depending on the organisation and project context. Some researchers believe that the HR function does not have a strong enough understanding of the intersection of jobs decision-making with the business strategy and external business environment (Nankervis, Compton and Baird 2008; Ployhart 2006). Other researchers believe that professionals in this function often do not identify as being connected to the concept of CSR, and are focused instead on short-term market and profit agendas (Bierema 2009; Fenwick and Bierema 2008; Vince 2005). Peek et al. (2008) therefore called for HR planning for the resource sector (with an emphasis on oil and gas) to be upgraded to the boardroom rather than relegated to lower organisational levels.

For businesses, the corporate affairs, external relations, health, safety, environment, and community functions often have accountability for developing and implementing the CSR strategies that intersect with jobs commitments (Cash 2012). Examples include indigenous employment, human rights, governance, poverty reduction, local content and participation negotiations, and assessing the socio-economic impacts of programs. These functions can be perceived, though, to be outside the internal project structure (Cash 2012). A challenge, therefore, is to ensure the effective embedding of senior and influential roles and personnel with strategic CSR competencies (both within HR functions and CSR roles more broadly) in the key internal project planning processes and tollgates.

This section has shed limited light on the roles potentially involved in making jobs decisions but has not outlined the workforce decision-making processes and whether or how the social context is embedded. The evaluation indicates that only limited research has been conducted to date on how and why resource companies make project jobs decisions and incorporate the social context.

The review of the literature now turns to examine the government approvals phase and the legislative Environmental Impact Statement (EIS) and SIA requirements submitted to obtain project approvals. The analysis assesses the extent to which the regulatory EIS/SIA imperatives drive the consideration of the social context and stronger connection to the business case in jobs decision-making.

4.4 Early pre-feasibility phase through to approvals

Another significant milestone for decision-making is when a project gets internal approval to proceed through to the pre-feasibility stage and to commence formal government approvals. The schedule during the pre-feasibility and feasibility phases becomes more defined than the previous phases, with a stronger emphasis on time and cost, with tactical deliverables becoming more pressing in the organisation (Project Management Institute 2013).

During the project approvals phase, most state regulations require resource companies to develop a comprehensive EIS incorporating an SIA as a component. The SIA involves "analysing, monitoring and managing the social consequences of development" and in its purest form can have a much broader role than a technical and regulatory tool subordinate to the EIS (Vanclay 2003, p. 6, 2004). Vanclay (2004, p. 269) believes that governments and companies could also use SIAs as a strategic and philosophical tool to collectively consider the harmful impacts of development, the goals of development, and processes of development. In practice, however, companies largely focus on the mechanistic and obligatory pursuit of approvals during this phase, compounded by the limited social understanding and experience of the project managers often responsible for commissioning SIAs (Esteves, Franks and Vanclay 2012; Galbraith, Bradshaw and Rutherford 2007). The SIA can, therefore, have only a minor role (confirming the subordinate connection to the EIS), with social practitioners (often consultants or workers in junior roles) lacking sufficient influence to shape the outcome (Esteves, Franks and Vanclay 2012; Galbraith, Bradshaw and Rutherford 2007).

SIAs tend to focus on immediate and significant social risks, impacts, and mitigation measures and do not integrate with or inform project decision-making more broadly (Berkes 1988; Esteves, Franks and Vanclay 2012; Galbraith, Bradshaw and Rutherford 2007; Lawrence 2003; Mulvihill and Baker 2001; Wood 2003). Limited emphasis is also typically given to the analysis of project opportunities and the pursuit and distribution of benefits

(Arce-Gomez, Donovan and Bedggood 2015; Esteves and Vanclay 2009; Gibson 2000; João, Vanclay and den Broeder 2011; Suopajärvi 2013). Bond and Pope (2012), in a recent 'state of the art' review of impact assessment literature, highlighted the need to understand better how the impact assessment process influences project decision-making. This recommendation also applies for jobs decision-making.

Chapter Two identified that local communities and government could heavily scrutinise jobs commitments and related social impacts in the SIA and local content plans. Yet companies, particularly in developing economies, are often cautious about engaging with communities and government on employment opportunities during the early project design and EIS phases, not wanting to raise stakeholder expectations (Hilson 2012a). This risk-aversion tends to hamper the effectiveness of the SIA to inform jobs decision-making. Alternatively, some companies will use access to jobs to garner project support and often promise direct and indirect employment benefits that can fail to materialise (Slack 2012; Wilson and Kuszewski 2011). Criticisms of inflated jobs figures by the mining company Adani cited in Chapter Two provide an example.

Unduly raising expectations can lead to considerable disappointment and possible conflict with local communities and governments over the project lifecycle (Slack 2012). The project approvals phase is about minimising risk, and it can be risky for companies to develop more realistic community expectations by proactively communicating what assistance the project will not deliver (Slack 2012). Davis and Franks concluded, however, that: "the best extractive companies (in terms of reduced conflict) are those that have the skills and systems to not only manage expectations but specifically to manage disappointment in processes or outcomes – whether among local community members, the government or their own staff" (2014, p. 33). This finding supports the earlier commentary regarding the important role of stakeholders in shaping project strategic value and managing uncertainty.

As the project transitions from the EIS/SIA approvals phase to post-approvals and during construction, companies will incur trade-offs in and between tactical and strategic considerations (Lester 2014b, p. 38). In theory, the project implementation team should have key performance indicators (KPIs) aligned with both tactics and strategy (Lester 2014b). In practice, project managers generally rely on their traditional training and experience to deliver projects post-approvals focusing on time and costs, with executives and key

managers compensated on these criteria (Eweje, Turner and Müller 2012). Project teams can, therefore, pay inadequate attention to how to attain the best organisational and project results, post-approvals and during construction, thereby negating the longer-term strategic views that informed earlier project stages (Eweje, Turner and Müller 2012). Slack (2012) recommends that companies should consider combining more specific CSR related KPIs for operations and projects across the organisation.

This section has emphasised the decision-making project environment during the project approvals phase and preparation of an SIA and also briefly covered the performance trade-offs incurred during the post-approvals phase. The literature indicates that the development of the SIA is typically a technical process, subordinate to the EIS and as a consequence likely occurs too late in the project process to inform project decision-making. This assessment requires further investigation, however, to ascertain whether – and under what conditions – the SIA does in some way inform jobs decision-making.

The next section examines the internal operating environment in more detail to understand the business drivers that influence jobs decision-making from project inception and across the lifecycle.

4.5 Internal jobs decision-making drivers over the project lifecycle

Pragmatic project lifecycle drivers that reflect commercial reality must underpin the examination of the internal context during the design and approvals phases. Few exploration projects become operations and the high investment costs and capital foregone, economic motivations, and the normal market trends of the industry lifecycle (including reallocation of capital, closures, delays, and production cuts) dictate company priorities (Prno and Slocombe 2012). As existing deposits become depleted and new deposits in often more remote locations require more capital, labour, and time to extract, projects incur diminishing returns across the lifecycle (AWPA 2013). Projects also take longer to construct, creating additional labour productivity imperatives (Topp et al. 2008). Companies, in turn, are under increased pressure from shareholders and financiers to be more efficient in their allocation of capital, to decrease project costs, deliver projects on schedule, and to improve productivity (EY 2013, 2014).

Labour costs are a significant expense and therefore a strategic issue for resource projects in the short and long term, having a major impact on investment attractiveness. In mining in developed economies, such as North America, labour can represent 30-40 percent of total operating costs. The cost of labour for mining in developing economies, in contrast, is approximately 20 percent (World Bank 2011, p. 54). The cost profile for wages is, however, rapidly changing in some developing economies, exacerbated by collective bargaining and country inflationary pressures.

An example of this situation occurred in Zambia, where mining operating labour costs represented 40 percent of total costs (the same as a developed economy). Rapid inflation in Zambia over a five-year period drove up the price of labour comparative to other developing economies (World Bank 2011, p. 55). The lack of supply chain linkages within Zambia also made other inputs (such as maintenance and repairs) expensive, further impacting cost competitiveness (World Bank 2011). Labour productivity, "[d]efined as the GDP value contribution an average worker creates in an hour of work" (Deloitte 2015) in Zambia was also low. Labour productivity is the outcome of a variety of determinants, including the intensity and mix of the three-factor inputs of capital, technology, and raw materials. Labour productivity covers the skills, socio-cultural, economic, and innovative capacity of the firm. Workforce inefficiencies compounded low labour productivity in Zambia along with higher wage costs, shortage of competencies, poor vocational education and training, and the importation of expatriates to fill specialist technical and managerial roles at a price premium.

Labour costs and productivity are also a major issue for oil and gas projects, especially during the construction phase. Construction costs for oil and gas projects typically comprise 30 percent of the project delivery costs but in Australia can be 50-60 percent of the total (Songhurst 2014). High labour costs, poor productivity, a lack of skilled workers to meet demand, industrial relations regimes, and restrictive workplace laws that do not allow the significant use of foreign construction workers have a significant impact on the cost (EnergyQuest 2014; Songhurst 2014). The study by EnergyQuest cited data from Shell that Australian industry workers are paid 130 percent of the American Gulf Coast benchmark during the construction phase (2014, p. 15). Overall, the delivery of oil and gas projects in Australia can be 30 percent more expensive than the United States, Canada, and Mozambique, with the cost of labour being one of the major cost differences (Ellis, Heyning

and Legrand 2013). This situation led to calls by oil and gas companies developing projects in Australia during the height of the construction phase (in 2014) for relaxation of labour laws to allow more contractors and foreign workers to improve cost competitiveness and enhance productivity (Chambers 2014).

As a consequence of rising labour costs and lower productivity, resource companies are exploring workforce optimisation models and seeking greater workforce control and flexibility to reduce labour costs. Examples include the implementation of flexible labour structures including casualisation, non-resident workforces, 12-hour shift rosters, and contract labour (Heiler and Pickersgill 2001). Non-resident long-distance workforce models include fly-in-fly-out (FIFO), bus-in-bus-out and drive-in-drive-out. These options are particularly attractive for projects in very remote sites or where operations have a short to medium life (Measham et al. 2013), with relative efficiencies, flexibilities, and the low cost of transportation (especially air travel) enabling variable costs to be spread across the project based on usage of these services (McKenzie 2010, p. 361).

Fringe Benefits Tax and other taxation incentives can also encourage the use of non-resident workforce models (McKenzie 2010). As an example, in Australia, the Commonwealth Government's (1986) *Fringe Benefits Tax Assessment Act* places taxation impediments on companies that provide housing to regional workforces. By contrast, accommodation provided to workers through non-residential work camps co-located with regional towns, as well as the provision of travel to and from the workplace during operations for these workers, are exempt from Fringe Benefits Tax. Another rationale for companies to use non-resident models is that they provide workforce choice and assist with attraction and retention, particularly in areas of in-demand and for professional skills such as engineering and specialised technical expertise.

McKenzie (2010) found that in Australia, resource companies today will generally only consider residential workforce models where the location of the operation is near a liveable town or urban centre with reasonable facilities (p. 360). Key considerations for companies in this situation are the availability of housing, affordable accommodation, land for development and suitable community infrastructure. Purpose-built mining towns are considered too expensive to build, maintain, and decommission, and incur significant long-term fixed costs and ongoing commitments, with companies much less willing to construct

them (McKenzie 2010). Obtaining planning and building approvals for new townships is also a protracted and cost-prohibitive process. Remote locations and the scale of resource operations can also limit access to the quantity and skills of local workers required by companies and the social infrastructure to sustain a residential workforce (Petrova and Marinova 2013). A report by Ellis, Heyning, and Legrand (2013) for McKinsey and Company, focused on oil and gas projects in developed economies, concluded though that accommodating a percentage of construction workers in existing regional residential communities near projects could have a positive effect on labour productivity and costs. The reduced travel time to get to work under this model could result in better shift rosters with an average increase in working hours of 14 percent, decreased pressure on long shifts, and over time, greater stability in the team (p. 19). The report acknowledged that government and industry would need to work together to ensure the community has in place the social and economic infrastructure and related taxation incentives to sustain the model.

Resource companies are exploring technological innovations to address existing project safety concerns, to improve productivity, and to reduce costs and energy consumption as well as for the longer-term to support exploration and operations in extremely remote and complex locations (Katari 2012; Matysek and Fisher 2016; McNab et al. 2013). Mechanisation of processes and equipment has developed progressively across the sector.

Mechanisation contributes to 'incremental and step-up innovation' and greater capacity utilisation with a reduction in the demand for labour. The largest savings will be realised however when automation can replace workers (Frey and Osborne 2015, p. 52). Automation results in significant labour cost and overhead savings and can also lead to substantial productivity improvements with autonomous machines that "move faster, are more precise, and cover longer distances" (Frey and Osborne 2015, p. 52). An example of automation cited by the Australian Workplace and Productivity Agency (2013) include Rio Tinto's Mine of the Future Program that invested AUD 518 million in driverless trains and trucks for iron ore operations in Australia. Another is Woodside Petroleum's remote processing facilities off the Western Australia Pilbara Coast.

A report by McNab et al. (2013, p. 16), based on conversations with industry representatives, concluded that the introduction of a fully autonomous fleet could result in a 30 to 40 percent reduction in the workforce of a typical open-cut iron ore mine. The jobs affected by

automation are primarily unskilled and semi-skilled, in roles that are usually the focus of company local hiring programs. Technology will, however, bring competitive advantages and higher skilled and new jobs to the resource sector. New roles will require specialised science, technology, engineering and mathematical skills as well as trained personnel to repair and maintain more sophisticated equipment (Lydall 2009, p. 117; McNab et al. 2013).

Given the potential positive impact on labour operating costs and productivity, investor analysts are starting to place more emphasis on understanding how increased mechanisation and automation can improve investor returns over time. The report by Frey and Osborne (2015, p. 53), commissioned by Citigroup, combines projections by Deloitte and the University of British Columbia to demonstrate the cost savings from ten percent of trucks in a mine being autonomous. The analysis forecasts that this scenario could result in a 75 percent reduction in the number of mine-site operators (Table 4). Productivity gains from shifting to fully autonomous trucks and drill rigs also increase substantially, projected at 60 percent for autonomous drill rigs and 20 percent for autonomous trucks (p. 54).

Table 4 Estimate of cost savings across the industry by adopting autonomous trucks

Scenario	No. of drivers per truck	Salary per driver (USD)	Cash costs per truck (USD)	Savings per truck (USD)	Truck population (units)		Total savings (USD billion)
					Manual (No.)	Autonomous (No.)	
Today	4-5[a]	120,000[b]	600,000[c]		40,500[d]	203	
Implied	1-2	120,000	240,000	360,000	36,450	4,050[e]	1.4

Source: Replicated from Frey and Osborne (2015, p. 53).

Notes:
a) Each truck uses up to ten people in total when support staff (servicing and maintenance) are taken into account.
b) This global average salary in the report is high (developed economy level) and, therefore, simplistic and illustrative only and also does not include on-costs.
c) Excludes the costs of the above-mentioned support staff.
d) The research cites the global population of mine trucks in 2014 at 40,500 with only 0.5 percent currently automated amounting to 203 units.
e) The ten percent forecast was based on a discussion between the report authors and BHP Billiton.

While the increased use of technology offers cost and productivity benefits, a detrimental social impact could result from displacing local and regional workers. Examples of these impacts include a reduction in local and regional workforces leading to reduced town and regional populations, economic activity, and industry linkages (McNab et al. 2013, p. 27). These negative impacts could be magnified significantly in a vulnerable developing economy context, providing grounds for local communities and social activists to argue that adverse impacts of projects outweigh the benefits.

In some developed economies, such as Australia and Canada, mining companies have negotiated land use agreements with local indigenous populations by agreeing to provide employment and training opportunities, amongst other benefits. Large-scale automation will mean that there are fewer 'entry level' jobs available for these communities as well as for developing economy communities where the jobs imperative is also pressing. McNab et al. (2013) argue that this is another reason why companies should more strategically consider the potential social implications of technology and workforce cost and productivity measures during the project design process. The imperative to understand these social impacts is of particular importance to developing and remote, developed, indigenous communities where the urgency for jobs is most pressing. Tension over reduced access to local jobs from the use of mechanisation and automation, can cause conflict between companies and trade unions over the protection of jobs for workers (Hattingh, Sheer and Du Plessis 2010, p. 255), as well as having a potentially negative impact on local communities.

The other side of the argument presented by researchers is that, as technology improves, access to remote areas for mining will increasingly be underground rather than requiring large amounts of land for open pits. In this situation, communities will not require relocation, producing a positive project impact, especially in developing countries and developed remote indigenous community locations (Hattingh, Sheer and Du Plessis 2010, p. 255). Another view put forward is that new downstream employment opportunities will be created in servicing automated equipment, providing highly skilled new roles to 'offset' the reduction in manual and unskilled labour (Hattingh, Sheer and Du Plessis 2010, p. 255). These 'new jobs', however, will probably not be locally based and, most likely, will not be filled by indigenous people because they mostly will not meet the education and training requirements (at least in the short term). Another issue impacting on the ability of local communities (and even nations) securing new roles, is that many of the new technologies used in heavy equipment are heavily dependent on the expertise of international manufacturers for servicing (Stewart 2015, p. 636).

In the medium and longer-term, policymakers project an ongoing skills shortage in the global resource sector, irrespective of the growth in automation, the adoption of more flexible workforce models, and the current industry downturn. Many resource countries such as Australia, Canada, Brazil, Chile, and South Africa forecast ongoing systemic skills shortages (EY 2013; Tshilongamulenzhe 2012). In Australia, in the medium term, key shortages in

skilled roles are expected in areas such as engineering (mining and petroleum), mining production managers, and geophysicists (AWPA 2013, p. 112). For the oil and gas industry as a whole, skills shortages are forecast globally for existing operations and new projects in the major skilled roles but especially for oil and gas well drillers, servicers, supervisors and contractors (Peek et al. 2008; PetroLMI 2013).

The ageing resource sector workforce in developed economies planning to retire over the next decade exacerbates the skills shortage (AWPA 2013; Peek et al. 2008; PetroLMI 2013). Skills shortages compound labour productivity concerns, given the likelihood of an increase in inexperienced workers and project teams (EY 2013). An ageing workforce has implications globally, with economic growth depending on the productivity of the workforce, complemented by rising labour force participation from women and older workers (ILO 2010). Across local resource communities the demand for labour for resource projects can also worsen skills shortages in other sectors of the economy. Support industries that pay much less than resource sector wages can struggle to attract local workers with businesses having to recruit from other locations or internationally (Dorfield and Healy 2011).

It is ironic that while the resource sector is grappling with long-term skills shortages, there is a growing unemployment crisis across developing economies (as introduced in Chapter Two). A structural skills mismatch is evident across many developing economies (such as Malaysia, South Africa, Tanzania, and Brazil), between those who are unemployed and underemployed and the skills and abilities required by the resource sector (Tordo et al. 2013; Tshilongamulenzhe 2012; World Bank 2013b). The same is evident in indigenous communities in developed economies where “the mere proximity to jobs does not mean that people are qualified for them or that employers will employ them” (Moran 2009, p. 2). A complex range of reasons connected to the lack of skills and other requisite human and social capital impacts on the employability of indigenous people across these remote communities (Moran 2009). This is explored in detail in Chapter Eight.

Skills mismatches and shortages, therefore, continue to result in resource companies and their suppliers, across all project contexts, bringing in foreign workforces, particularly during the construction phase, to meet the demands of the project schedule where allowable under regulation. In Australia, the subclass 457 visa program for resource sector workforces has

continued to draw criticism from communities and unions that migrants are taking local and Australian jobs[7]. Under the scheme there is also the potential for exploitation of workers[8].

This section has highlighted a broad range of business case and lifecycle complexities that intersect with project jobs decision-making and the attainment of strategic project value. The impact of the increasing cost of labour to the cost competitiveness of projects and access to a reliable and productive supply of workers is a critical value chain issue. These labour considerations intersect with the competitive external context of heightened expectations of local communities and external stakeholders and increased government regulations. There is a need for continued strengthening of project jobs decision-making processes to take into consideration these differing and often competing internal and stakeholder views and expectations and the variability of the social context.

4.6 Conclusion

Chapters Two, Three and Four have covered the external, institutional and internal environment and stakeholder expectations and demonstrated why jobs decision-making is an important area of study. The chapters combine to provide from the literature a historical and contemporary perspective on jobs decision-making and the connection to the social and business context, which addresses Project Task One. This chapter has drawn together project management, HR and social science literature to provide the internal context.

The project management literature emphasised the importance of front-end planning and information agility in project decision-making to support the development of strategic project value. Researchers identified that during the project design and approvals phases, executives that spent more upfront time considering societal and economic aspects of the options under study achieved stronger longer-term project results. Constant tension can, however, exist between strategic and tactical project delivery objectives during these phases. This tension flows through to impact on how the social context is considered and informs jobs and project decision-making more broadly, with less emphasis potentially given to the alignment of stakeholder views, values and objectives.

[7] See ABC (2014) for an example related to the Roy Hill project in Western Australia and criticism from the Construction, Forestry, Mining and Energy Union (CFMEU) of 457 visa practices.
[8] An example is the allegation in 2011 that foreign workers on a multi-billion dollar oil rig project off the West Australian coast were working 84 hours a week and getting paid AUD 900 a month, amounting to AUD 3 an hour (Barlow 2011).

The chapter also identified business case factors that influence jobs decision-making including the cost of labour, productivity, mechanisation and automation and skills shortages. Literature was not forthcoming on how the social context influences decisions in these areas or whether the social impact assessment process informs jobs decision-making. The HR literature does, however, call for a greater connection between the business strategy and the project temporal and social context in jobs decision-making. From the existing research, it is, therefore, still unclear who makes jobs decisions, how resource companies consider the social context, and the relationship between business strategy, jobs decision-making processes, and practice. The dearth of research also means that there is limited knowledge of the potential intended and unintended social consequences of jobs decision-making and the strategic connection between the social and external and internal contexts in jobs decision-making.

Overall, the analysis presented in Chapters Two, Three and Four provides a compelling case for undertaking research to understand how companies consider and weight the social context in project jobs decision-making and the role of the SIA and other social analysis commissioned by the company to inform this process. A well-structured research design can provide a methodology to assess the extent to which the social context is currently institutionalised and why companies should give fuller consideration to these aspects and how to do this in practice. Institutional theory presented in Chapter Three provides a valuable framework to inform this analysis.

5 Research design

5.1 Introduction

Chapter One presented the primary aim of the study as being: to answer the research question in a manner consistent with the pragmatism paradigm to provide new insights that advance the knowledge base for researchers and practitioners alike. To maintain consistency with this aim, the research methodology emphasises the blending of practice, with theory and literature.

- Project Task Three: Develop and apply a research methodology that blends theory with practice to address the research question.

The research approach sits within the pragmatism paradigm and utilises a grounded theory methodology, informed by institutional theory. The study draws on qualitative data from semi-structured interviews with 25 stakeholders involved in CSR and project decision-making roles, quantitative data from various secondary sources, and a case study of the PNG LNG Project. The research design aims to provide a well-structured approach with strong theoretical and practical links between the literature review and the research question matched to the study's purpose (Tharenou, Donohue and Cooper 2007). The thesis culminates in a series of theoretical propositions and a 'Towards Best Practice Framework' in the concluding chapter. Figure 4 presents the research design in schematic form. The final section of the chapter maps the design against "eight 'big-tent' criteria for excellent qualitative research" articulated by Tracy (2010, p. 840).

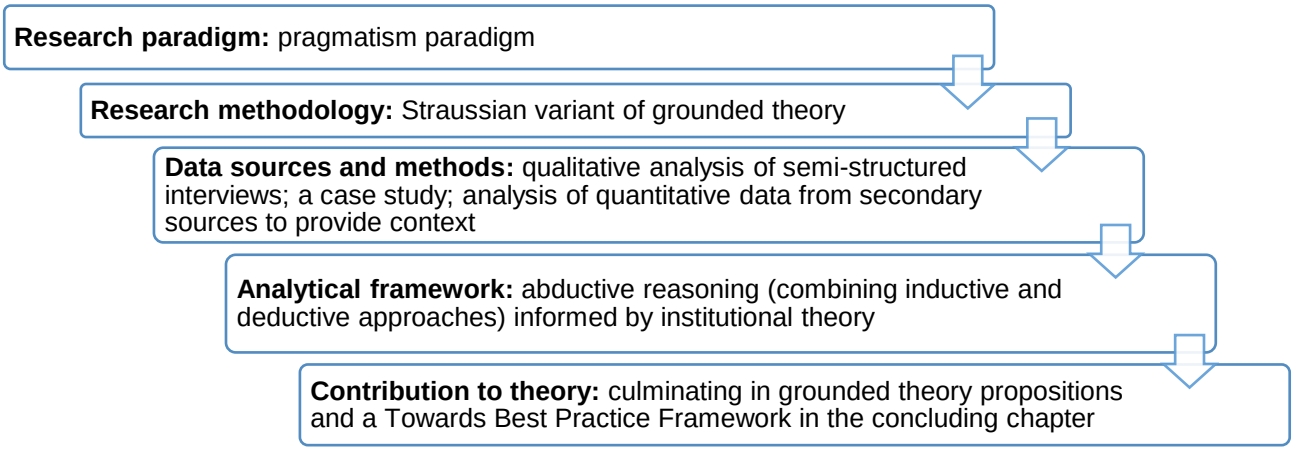


Figure 4 Grounding the research in practice

5.2 Pragmatism paradigm

The pragmatism paradigm focuses on understanding the truth of practice with researchers emphasising the 'what and how' of the research problem to understand better experiences, consequences and beliefs (Creswell, 2003, p. 11; Creswell and Clark 2007; Elkjaer and Barbara 2011; Morgan 2007; Tashakkori and Teddlie 1998; Teddlie and Tashakkori 2009). Truth in this sense refers to ideas that can be assimilated, verified and validated. Pragmatists emphasise 'knowing' as an ongoing process that relates to problem-solving. Underpinning the philosophy is the viewpoint that all knowledge is tentative and that beliefs can be revised when new and better information comes to hand. A pragmatic approach is, therefore, an emphasis on whatever works to solve the problem and to address key questions, with the solution often able to be verified through a mix of experiences, empirical studies, science and literature (Creswell 2012; Creswell and Clark 2007; Elkjaer and Barbara 2011; Morgan 2007; Tashakkori and Teddlie 1998; Teddlie and Tashakkori 2009). Depending on the problem, the pragmatism paradigm can accommodate the use of qualitative, quantitative, and mixed methods research (combining qualitative and quantitative methods) (Morgan 2014). Theories can inform research, but consistent with the paradigm they can be abandoned or reframed as new and better information comes along.

5.3 Link to theoretical concepts

In keeping with the pragmatism paradigm, theory informed the research, which contributed to a framework for understanding practice (Watson 2012, p. 209). Specifically, institutional theory and the linked concepts of social licence to operate, CSR, and shared value provided boundaries to guide the analysis (Miles and Huberman 1994) as presented in Chapter Three. This theory and these concepts emerged from the initial literature review as areas of interest consistent with abductive reasoning (defined in the section below). Chapters Six to Nine progressively draw these areas together to inform the development of new theory in Chapter Ten.

5.4 Research methodology and methods

This study utilises the Straussian variant of grounded theory research methodology (covered in detail below), which aligns with the philosophical underpinnings of the pragmatism paradigm (Corbin and Strauss 2008; Strübing 2007). Grounded theory focuses on the generation of theory. From this perspective, "theories are seen as existing in a relation of gradual difference along a continuum of knowledge" (Strübing 2007, p. 558). The study also

applies abductive reasoning, which combines inductive and deductive approaches to make logical connections between data and theory (Teddlie and Tashakkori, 2009). This approach is consistent with grounded theory and the pragmatism paradigm (Klag and Langley 2013). Using abductive reasoning, the analysis of data "mov[es] back and forth between induction and deduction - first converting observations into theories and then assessing those theories through action'' (Morgan, 2007, p. 71). The use of abductive reasoning in this study provides rigour in the analysis of data and the development of study conclusions and new theoretical insights, enhancing the potential transferability of learning to other project contexts (Morgan 2007).

The research used predominantly qualitative methods to gain knowledge of practice and to build grounded theory. Quantitative data from secondary sources and a comprehensive literature review were used to identify intended and unintended social consequences of jobs decision-making to complement the qualitative research. The two main sources of qualitative data were:

1. In-depth semi-structured interviews with 'key informants', which sought to draw out how and why companies make jobs decisions and consider the social context in jobs decision-making.
2. A case study of a large-scale resource project in a developing economy, based on public material examined the extent to which company project approvals documentation drew out the social context associated with jobs decision-making. This analysis was then compared with the social issues and opportunities experienced by local communities during project implementation.

5.5 Semi-structured interviews

The study used existing contacts and LinkedIn to recruit a diverse interview pool of people with extensive project-related planning, delivery, CSR, and HR resource sector experience. To be included in the study, participants required current or recent (last five years) large-scale project experience and no direct work history with me in the same function. The latter requirement was imposed to minimise research bias. I did not personally know 85 percent of the interviewees at the time they were approached to participate.

A total of 29 interviews with 25 participants provided significant insight into the area of focus (Creswell and Clark 2007; Marshall and Rossman 2011). Twenty-five of the interviews were conducted either in person or by telephone, mostly with individuals currently or recently employed in resource companies – in the corporate, asset, function, and/or project delivery levels. An additional four follow-up interviews provided interpretative clarity on the project and technical workforce decision-making data and the intersection with CSR roles. This helped to ensure that the preliminary analysis accurately reflected company practice. Most participants worked for businesses headquartered in developed countries. All but one participant had between 20 and 40 years' career experience, either working in the industry and/or as a consultant to the resource sector. The remaining participant had eight years' experience. Eighty percent of participants referred to experiences from at least four or five large-scale projects across a broad mix of developed and developing economy contexts. Twenty-three of the respondents had experience in a wide range of global, large-scale resource projects; two had only worked in a developed economy (but nonetheless on many projects), and one had been employed mostly in one developing economy location. Executives and directors drew on cumulative experience of more than thirty resource sector projects across a diverse range of mining and oil and gas projects in developed (regional, rural and remote indigenous communities) and developing contexts (conflict and politically, economically and socially fragile states).

The interviewees represented six of the top ten tier-one mining companies that are registered in Australia in addition to a number of second tier mining companies (those with producing assets with a market capitalisation of less than AUD 5 billion). The sample also included people from four large oil and gas companies. Interviewees from non-company roles (in the 'Other' category explained below) had either worked on or undertaken projects over a comprehensive range of mining and oil and gas companies and locations. Two of the interviewees had worked on the case study project discussed in Chapter 9. All but one of the interviewees had worked across organisational micro, meso, and macro levels (refer to Chapter Three for the definitions) either in internal or consulting roles.

At the time of the interviews, 20 individuals were based in Australia. Thirty percent of participants were women, double the percentage of women in the mining industry in Australia (Australian Human Rights Commission 2013). There was a fairly even distribution of academic disciplines of business, engineering, and social sciences/arts disciplines (with

women likewise distributed) providing a multitude of perspectives. Interviewees with CSR expertise came from diverse backgrounds in the industry, non-government organisations, government, consulting firms, and the not-for-profit sector. Many of the 'Other' interviewees had strong senior executive leadership experience across a broad variety of company product groups and functions. A coding identifier, outlined in Table 5 below, was used to group interviewees while protecting anonymity.

Table 5 Interviewee list and identifier

Who	No.	Identifier	Understanding sought regarding jobs decision-making
Company executives/ Group view	2	EXEC	External constraints, executive directives, operating environment and social considerations.
CSR roles	8	CSR	The extent to which roles embedded in jobs decision-making reflect the social context and overall observations.
Project vice presidents / directors	2	PD	Project imperatives and the social context.
HR roles	2	HR	How companies make jobs decisions and the consideration of the social context.
Consultants responsible for SIAs	3	SC	The intersection between jobs commitments and the social context during the approvals phase, based on the scope of the SIA consultancy.
Financiers	2	F	The importance placed on the social context and jobs.
EPCM/ EPC	1	GS	Jobs commitments incorporated into project contracts.
Other	5	O	Broad industry observations from senior and executive roles covering – non-executive director, general manager, technology, procurement, and supply chains, product group and functional head, executive consulting expert and regional development policies of a development bank.
Subtotal	25		
Follow-up	4		In-depth follow-up meetings with a small selection of participants with their notes merged into their original transcript.
Total	29		

5.5.1 The interview process and ethical approval

The study complied with the University of Queensland's ethical requirements. Interviewees were sufficiently senior and/or independent in their roles to obviate the need for gatekeeper approval. Interviewees reviewed and signed a copy of the Project Information Sheet and Consent Form before the interview (see Appendix One). This approach ensured the attainment of free prior and informed consent for each interview.

A semi-structured informal interview, using guiding questions, enabled participants to provide their experience and insights. The questions aligned with the purpose of the research and theoretical concepts of interest, guiding information capture and subsequent coding and analysis (Galletta and Cross 2013, p. 45). Questions moved from the general to understand the interviewee's academic and career background, through to those focused on his or her areas of expertise related to the topic. During the interview, questions were simplified with some omitted or modified at the time, based on the responses provided by participants. In most interviews, I established rapport with the interviewees due to our common backgrounds in the industry. This rapport enabled interviewees to speak openly of experiences. Appendix One contains the interview question template.

Interviews took 60 minutes on average, with detailed de-identified notes taken at the time to maintain the anonymity of the participants and project location details; for example, the reference to Asia combined places like The Philippines and Vietnam. A unique identifier for each interviewee further protected the anonymity of participants (e.g., CSR1). Participants received draft transcripts following the interview for their review and endorsement before finalisation. The interview data are used extensively in Chapters Six, Seven, Eight and Nine.

The research followed Strauss and Corbin's (1990) three-stage theoretical sampling approach of 'open sampling, relational, variational and discriminate surveying' as summarised in Table 6 below. In practice, this method enabled the inquiry to go into more detail and evolve as the key areas and concepts emerged from the data (Corbin and Strauss 1990; Lincoln and Guba 1985). An example is the conducting of four follow-up interviews to provide greater explanatory detail.

Analysis of the semi-structured interviews was undertaken iteratively, working inductively from feedback from interviewees, across interviews, and then considered against the theory and literature (Eisenhardt 1989). Analysis commenced on completion of the first interview and continued in a sequential manner (Glaser and Strauss 1967; Strauss and Corbin 1998). Participants received interview notes for review within a few days of the meeting. This approach had the added advantage of enabling the ongoing evaluation of the effectiveness of the guiding questions, including the ease with which the questions assisted with the identification of concepts and themes. The interview questions were adjusted after the first interview to be more open-ended under the broad themes.

Table 6 Theoretical sampling methods: semi-structured interviews

Method	Open sampling	Relational, variational and purposively	Discriminate
Semi-structured interviews	Interviewing roles involved in project decision-making and large-scale resource projects over the macro, meso and micro project levels.	Selecting participants from a range of functional, company, sector, and developing and developed economy contexts. Seeking roles with senior-level experience to obtain historical and contemporary insights.	A few persons who have broad executive industry experience and/or who are not employed in the resource sector to provide additional explanation in specific areas where clarity was sought e.g., automation, investors, and regional development. Returning to re-interview a small selection of interviewees to assist with interpretive clarity to confirm or clarify emerging findings.

The coding and analysis of data broadly followed Corbin and Strauss's (1990) concepts, categories, and propositions approach (p. 7) and utilised open, axial and selective coding as summarised in Table 7 below.

Table 7 Coding and analysis of interview data

Approach	Coding and analysis tiers
Initial organising	**Tier One: Initial organising codes**: developed from the literature across Chapters Two and Four and used to collate interview responses relating to the following areas: • experience, academic and career background, role examples, general jobs observations • social issues, opportunities, policies and procedures integration • project drivers and influences (external and internal) • jobs decision-making • local and community jobs expectations • regional development • SIA and social analysis • shared value recommendations • internal culture • other
Concepts	**Analysis of incidents and events as a potential indicator of a phenomenon (open coding):** **Tier Two: NVivo interview coding categories**: refined from the interview data commencing on completion of the first few interviews and continuing until the last interview by drilling down into the sub-themes and concepts from the interviews within tier 1 codes. **Tier Three: Grounded theory analysis of the data:** critical reflection on what the data were and were not saying using a range of grounded theory tools such as questioning, analysis of emotional cues and industry language, contextual analysis, process versus practice, time frames, and positive and negative views.

Approach	Coding and analysis tiers
Categories	**Comparisons in and between concepts emerging from the data (axial coding):** **Tier Four: Views on CSR:** assessing the interviews for evidence of CSR views related to jobs decision-making in a project environment and identification of areas of potential contention to support the analysis of institutionalisation. **Tier Five: Institutional theory and CSR in jobs decision-making:** the next level of coding focused on evidence to assess the institutionalisation of the consideration of the social context in jobs decision-making from the interview data. Key concepts from institutional theory (drawn from Chapter Three) were used to analyse interviewee responses against these theoretical terms. **Tier 6: Social impact themes:** detailed analysis of interview responses and social impact literature and coding over the key themes identified from the literature.
Propositions	**Selective coding and analysis:** Identification and analysis of the generalised conceptual relationships between categories and concepts and the phenomena under study to develop propositions via abductive reasoning (Pandit 1996).

5.5.2 Analytical tools utilised

The interview data was coded by theme in NVivo using a deductive process based on the triangulation of topics identified in the original literature review as discussed above (Hutchison, Johnston and Breckon 2010). Microsoft Word tables and memos were then used to merge the NVivo coded data, to integrate the data into themes, and to move data in and between themes. Analysis of the data in the word tables resulted in the addition of more themes as part of an evolving inductive and iterative process. Theory testing occurred through comparative analysis, comparing different acts and situations from the interviews, across project contexts supported by the review of the literature and analysis of the case study (Yanow 2012). This approach enabled conclusions to be presented in a scientifically rigorous manner (Hennink, Bailey and Hutter 2010, p. 258).

5.6 Project jobs case study: PNG LNG Project

Chapter Four acknowledged the intense focus given to public documentation during the regulatory approvals phase by communities and governments who have high expectations of access to local jobs. The chapter identified the need for research to understand the extent to which the EIS and SIA regulatory instrument draw out the social context to inform jobs decision-making. Initially I proposed a review of a selection of SIAs against a range of social context themes identified from the literature and interviewees. The section below summarises how the case study design evolved during the study thereby making a more worthwhile contribution to new knowledge by providing a more nuanced and broader analysis than originally envisaged.

First, a broad scan of current and recent resource projects against the criteria referenced in Table 8 identified a selection of SIAs for analysis.

Table 8 Single case study selection criteria

Developing or developed economy	Large-scale project greater than one billion or significant location or country GDP impact
Long-life greater than 20 years	SIA completed in the last six years
Local participation legislative requirements	High community expectations of access to local jobs
Ideally having completed or finalised project implementation to steady-state operations	A mining or oil and gas example

The scan identified a range of SIAs with six sourced, and reviewed from Australia, PNG, Zambia and Guinea (refer Table 9).

Table 9 SIAs sourced and reviewed during the study

Country	Location context	Project name, commodity and proponent	Value $ (Billion)	Status	Reference
Australia	Developed (new resource location)	Carmichael coal mine and rail project (Adani)	AUD 16.5	Approved by the Queensland Government with conditions 7 May 2014	(Queensland Department of State Development 2015)
Australia	Developed (remote indigenous)	South of Embley, Amrun bauxite project (Rio Tinto)	AUD1.9	Approved by the Queensland Government and then by the Rio Tinto Board on 27 November 2015	(Queensland Department of State Development 2016)
Australia	Developed (existing resource community)	Arrow LNG Plant (Shell Australia)	AUD15	Approved by the Queensland Government with conditions 10 September 2013 various stages of construction	(Queensland Department of State Development 2013)
Zambia	Developing (existing resource community)	Sentinel copper mine (First Quantum Minerals Ltd) part of the Trident project incorporating the Enterprise nickel mine	USD2.1	Completed 28 August 2015	(First Quantum Minerals Ltd 2015)
PNG	Developing (remote indigenous new resource location)	PNG LNG Project (then Esso Highlands)	USD19	Completed 2014	Referenced extensively in this chapter below and Chapter Eight
Guinea	Developing (fragile state and conflict- prone new resource location)	Simandou iron ore project (Rio Tinto)	USD20	Shelved July 2016	(Rio Tinto 2016)

I selected three SIAs that provided different contexts (mining, oil and gas and developed and developing locations at various stages of development) for further analysis and sourcing of support material (e.g., government reports, approvals documents where available and press clippings):

- Carmichael coal mine and rail project (approvals phase during case study development)
- Sentinel copper mine (construction phase during case study development)
- PNG LNG project (commercial production).

After reviewing several SIAs I opted to focus on the PNG LNG project for closer analysis. The primary reason for my decision was that the project appeared to be an exemplar of contemporary, comprehensive regulatory and financier requirements and NGO interest. PNG LNG project material to inform the case study analysis, spanning from the construction to operations phases, included a large volume of independent consultant reports required by project financiers as well as independent NGO studies. Given the availability of this material, I assessed that a richer context and more in-depth inquiry into the research problem and question was obtainable by narrowing the case study to focus solely on the PNG LNG project. The ability to broaden the scope to assess the 'lived' experience of the project during the project approvals phase, construction and early production through access to public documentation enhanced the academic appeal and integrity of this approach.

The second reason for focusing on only one project was more pragmatic, to do with the thesis word limit constraints and the desire to look in detail at the phenomenon under study. At the time of making the decision to focus on a single case study I was already immersed in the detailed analysis of the semi-structured interviews and literature and the formation of preliminary findings. The richness of the material collated and the experiences shared by interviewees provided me with confidence that I had sufficient data to comprehensively understand the research problem and to form new theoretical insights applicable to developed and developing economy contexts.

For the earlier chapters, to sufficiently 'tell the story' and frame the research problem I needed to draw from a wide body of multidisciplinary literature. I acknowledged in the

introduction to the study that a limitation of this approach was the potential trading-off depth of analysis within the individual disciplinary streams for breadth. A focus on a single case study enabled me to flip the analysis to emphasise depth, which I found intuitively and academically appealing. The decision to concentrate on a single case study, drawing on a large body of public material, therefore, provided richness of context into the research problem and question to complement the data collated to that point.

Some of the other SIA research material was then incorporated into the earlier chapters to support the literature, consistent with the use of abductive reasoning. Chapter Two used Adani as an example of the intense focus on jobs by governments and communities. Chapter Eight used the Guinea Rio Tinto project to illustrate social opportunities associated with jobs decision-making. The example of mining in Zambia is used to demonstrate countries that do not have in place local content and participation policies in Chapter Two as well as the connection between labour productivity and cost in Chapter Four.

The case study, therefore, provided an important bridge between the inductive analysis and findings in the semi-structured interviews and literature review (Mariotto, Zanni and Moraes 2014, p. 362). Table 10 provides a summary of the PNG LNG Project.

Table 10 PNG LNG Project summary

Details	PNG – developing (oil and gas)
Project	Esso Highlands Limited (EHL) PNG LNG, Exxon Mobil JV, liquefied natural gas project, PNG
Key features • developing economy • USD 19 billion project capital cost • project life – 30 years • SIA completed – end 2008 • legislative requirement for local employment • high expectations of access to jobs by landowners and 'local' communities	• project entered the operational phase in 2014 • oil and gas • company and independent reports provide information on the importance of employment to communities 2010- 2015

A large volume of public domain documentation on the PNG LNG Project informed the case study (Table 11).

Table 11 Documentation accessed for the PNG LNG Project

Documentation	Details
PNG government legislation	PNG Oil and Gas Act (1998). PNG Environment Act (2000).
Environmental approvals	EIS, SIA and Economic Impact Assessment documents (approximately 2,000 pages) and the Environmental and Social Management Plans (14 plans reviewed related to social management for the construction phase).
Independent lender reports	Reports of the Independent Environmental and Social Consultant who monitors project compliance with environmental and social commitments on behalf of Lenders (16 plans reviewed).
Company environmental and social reports	22 reports reviewed.
Academic report	*Building the foundations for a long-term development partnership: The construction phase of the PNG LNG Project* (Nelson and Valikai 2014).
NGO funded reports	*Pipe dreams – the PNG LNG Project and the Future Hopes of a Nation* (Fletcher and Webb 2012). *Listening to the Impacts of the PNG LNG Project, Central Province, PNG* (Oxfam Australia) (Wielders 2011). This study incorporated the views of 730 people (men, women, and youth) living in the project villages of Porebada, Boera, Papa and Lea Lea, located near the gas liquefaction plant site at Port Moresby, as well as district level officials and representatives from Esso Highlands. *The Community Good: Examining the Influence of the PNG LNG Project in the Hela Region of PNG* (National Centre for Peace and Conflict Studies, University of Otago) (McIlraith et al. 2012). This report reflects feedback from two surveys of people from 17 project communities as well as 70 individual and group interviews.
Other	Media articles, trade journals, websites, reports and publications.

5.7 Grounded theory analytical framework

A grounded theory analytical framework (‘the framework’), drawing on the work of Corbin and Strauss (1990, 2008) guided the research. This framework helped to ensure discipline in the collation and analysis of data by providing a connection to the study tasks and research question. The framework was built progressively and continuously refined to ensure analytical integrity. Figure 5 below outlines the framework.

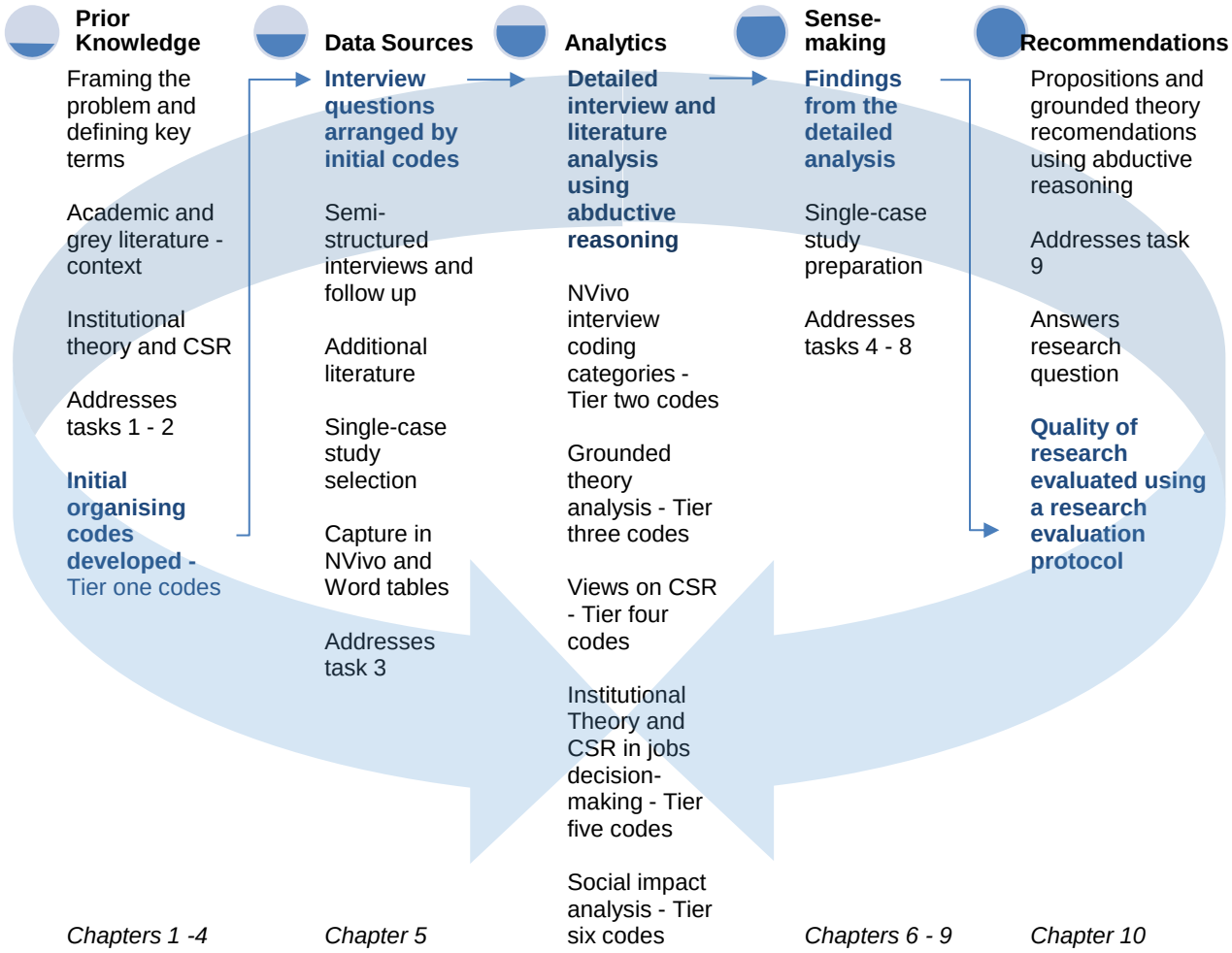


Figure 5 Grounded theory analytical framework

5.8 Reflexivity

I have not had a career as a researcher. My academic background has covered the disciplines of finance and accounting, education, marketing, management, and strategy. I also bring 20 years of career experience to this study across social performance, regional development, accounting, and finance roles. During this period, I have obtained experience across all phases of the project lifecycle in developed and developing economy contexts. This experience includes exposure to and involvement with six large-scale resource projects. My background influences my views and the project design. It also means that I have a natural predilection towards taking a multidisciplinary approach to my study and work. Throughout the progression of the thesis, including the design of the research methodology, I utilised reflexivity to develop the topic, reflecting on my career but also ensuring that this experience did not inadvertently bias the research (Arber 2006; Galletta and Cross 2013). The two main areas where I had the potential to be biased related to my personal belief in the industry as a driver of community growth and opportunity and my view

that I already have a good understanding of the social context for the resource sector. Regarding the first area of bias, I deliberately sourced literature that provided a range of diverse views, both positive and negative to underpin the analysis. The next section outlines how I managed the second matter.

I commenced the interviews by declaring my resource sector background. This approach positioned me as an ally rather than an outsider or critic, providing interviewees with a sense of trust that I would represent their views accurately within the analysis. The provision of the interview transcripts to interviewees for verification confirmed the accuracy of their feedback. I felt a great sense of responsibility to ensure that my analysis was not value-laden and that I respected the in-good-faith discussion and trust that the interviewees had in me. My focus during the interview and the collation of data was on gaining information in a detached manner, without comparing the experiences relayed with my own. Interestingly, I did not find it difficult to maintain this objective detachment. The use of mostly telephone interviewing assisted me to keep this state, as I was not moderating my approach based on the development of personal rapport through meeting face to face. This sense of detachment continued until I was deep in the analysis and developing the formative views for Chapter Ten.

Once I had undertaken the preliminary analysis of the data, I then revisited Chapters Six to Ten with a harder hitting, pragmatic lens, comparing in my mind what the data were saying with my personal experiences in order to identify anomalies or areas where more rigour or data were required to close gaps in the analysis. It was at this point I again returned to the literature to drill down into particular themes, theory, or concepts to provide more explanatory detail. In the concluding chapter I then allowed my ‘lived experience’ to also inform the summary of findings. At the time of undertaking the research I applied this approach intuitively but on reflection have come to understand it is a form of abductive synthesis consistent with the research methodology (Klag and Langley 2013, p. 61).

Industrial relations are an example of a field where I did not believe I had the full story but where, through reading specific labour journals, I could complement the conclusions from the interviewees in Chapter Eight. I drew on recent research that referenced in detail the experiences of a company where I had worked from 2009 to 2012, during a peak time of community concern regarding 100 percent FIFO workforces. At the beginning of this project

I did not intend to refer to this case. Towards the end of the project, more than four years after leaving the role, and with the emergence of relevant academic literature, I considered it a good example to use and one where citing existing literature would ensure the analysis remained largely free of bias.

5.9 Evaluation

In designing this study, I was informed by the "eight 'big-tent' criteria for excellent qualitative research" articulated by Tracy (2010, p. 840) as presented in Table 12 below.

Table 12 Eight 'big-tent' criteria for excellent qualitative research

Criteria	Evidence
Worthy topic – relevant, timely, significant, and interesting	Of strategic importance to a company's economic, regulatory and social licence to operate as well as to society.
Rich rigour – theoretical constructs, data, samples, contexts, and collection and analysis processes	Draws from a large volume of practical insights from the literature and the experience of interviewees over a multitude of global contexts. Maintains consistency of research approach through the inclusion of a project aim, guiding critieria and tasks consistent with the pragmatism paradigm.
Sincerity – self-reflexivity and transparency of methods and challenges	The research design defines a transparent methodological and analytical process and reflects on my management of personal bias.
Credibility – thick description, concrete detail, triangulation, multi-vocality and member reflections	Thick description and analysis provided through the triangulation of data from semi-structured interviews, literature and a single case study.
Resonance – transferable learning	Thesis conclusions structured to inform practice, with limitations noted on the overall generalisability of a single case study to a range of developed and other developing economy contexts.
Significant contribution – conceptually and theoretically and practically	Connects institutional theory with the concepts of CSR, social licence to operate, and shared value, providing a new theoretical lens to examine a practical industry problem.
Ethical – procedural, situational and cultural	Free, prior, and informed consent obtained from interviewees.
Meaningful coherence – study achieves what it purports to achieve, uses appropriate methods and procedures and meaningfully interconnects literature, research questions, findings, and interpretations with each other	The conclusion draws together analysis from the chapters to demonstrate saturation of knowledge to address the research questions, triangulating data to connect literature with new findings.

5.10 Conclusion

The research design for this study blends institutional theory with practice to address the research question in accordance with Project Task Three. The implementation of the design enabled the development of a persuasive response to the research question that emphasised a socially valuable outcome as well as an approach that made commercial sense for companies. The design, the analytic process and the integrity measures identified above present a research protocol with a chain of evidence at every stage of the research process (Yin 2009). The research methodology incorporated verification strategies through the triangulation of interviews with literature and document reviews (Morse et al. 2002, p. 18). This approach required sensitivity to the context under analysis to draw out heterogeneity and homogeneity of views, experiences and social contexts over all data sources (Klein and Kozlowski 2000, p. 220).

I acknowledge that a single developing economy case study alone does not provide sufficient generalisation on the applicability of the PNG LNG project findings to a developed economy context. However, the triangulation of qualitative data sources combined with the close connection to theoretical concepts does enhance the ability to generalise recommendations (Yanow 2012, p. 36).

The next chapters' present key findings from the research. The analysis culminates in Chapter Ten, where I address the research question and provide propositions that contribute to the development of new abductive theory as well as guidance on how to embed the institutionalisation of the social context in jobs decision-making in practice.

6 Jobs decision-making in practice

6.1 Introduction

Chapter Four identified that jobs decision-making occurs within a complex business environment, but shed little light on the formal and informal processes, roles, and accountabilities involved, and the embedding of the social context. These processes include norms, policies, standards, procedures, guidelines, systems, and tools, including business approaches to social risk management and stakeholder engagement. The literature also provided few insights into the weightings and trade-offs applied by companies to the external and internal drivers within the institutional field. This chapter focuses on addressing these gaps in knowledge through the critical analysis of the perspectives, observations, experiences and beliefs of interviewees gained from the semi-structured interviews. Key concepts from institutional theory provide a structure to assimilate interview responses and to validate and verify practice.

The first part of this chapter addresses Project Task Four:

- Project Task Four: Identify formal and informal jobs decision-making processes and whether they constrain or enable the consideration of the social context.

The middle and final parts of this chapter address Project Task Five:

- Project Task Five: Understand why resource projects make jobs decisions and the trade-offs and connections between the external and internal drivers and the consideration of the social context.

6.2 Jobs decision-making processes

This part of the chapter starts by examining the technical process of jobs decision-making during the project design and approvals phases. The section progresses to assess how the macro project governance structure impacts on the consideration of the social context at the meso and micro project levels. The section then examines whether social risk identification processes, organisational policies and standards, and project KPIs contribute to the embedding of social matters in jobs decision-making. The feedback from interviewees also

identifies the extent to which community engagement and advice from CSR personnel informs the consideration of the social context. Analysis across these areas enables an assessment of how internal company cultural-cognitive, normative and regulative institutional processes can constrain or enable the consideration of the social context in jobs decision-making.

6.2.1 How companies make jobs decisions

An essential formal technical process during the project design and approvals phases is the completion of the operating workforce profile, which sets out the workforce numbers, roles, and how they will be sourced and accommodated (EXEC1, EXEC2 and PD1). Companies will take different approaches to workforce decision-making in developing economies compared to developed economies where there are likely to be established practices, industrial relations legislation, and competent governments. Regardless of the context, the project team will still generally follow the same internal technical process (EXEC1, HR2 and PD1). Steering committees and subject-matter peer reviews (bringing in personnel from other macro and meso levels) are frequently used by project teams to ensure broad assessment and corporate support for decisions (EXEC2). Key considerations are local content and participation, the use of local contractors, and related aspects such as safety and engaging with the local community on the potential availability of job opportunities (EXEC2 and HR2). The executives and project directors interviewed believed the process of developing the workforce profile and plan, which occurs over two to three years, provides plenty of time for a comprehensive approach to labour planning and consideration of the social context (EXEC1, EXEC2, PD1 and PD2).

Table 13 summarises the formal operational workforce planning phases for a tier-one resource project.

The EPCM and EPCs will generally determine the construction workforce delivery requirements, with the project owner maintaining an internal team during construction and for operational readiness and the transition to operations. Workforce accommodation arrangements during construction can either be assessed and managed by the owner or with contractors managing their requirements.

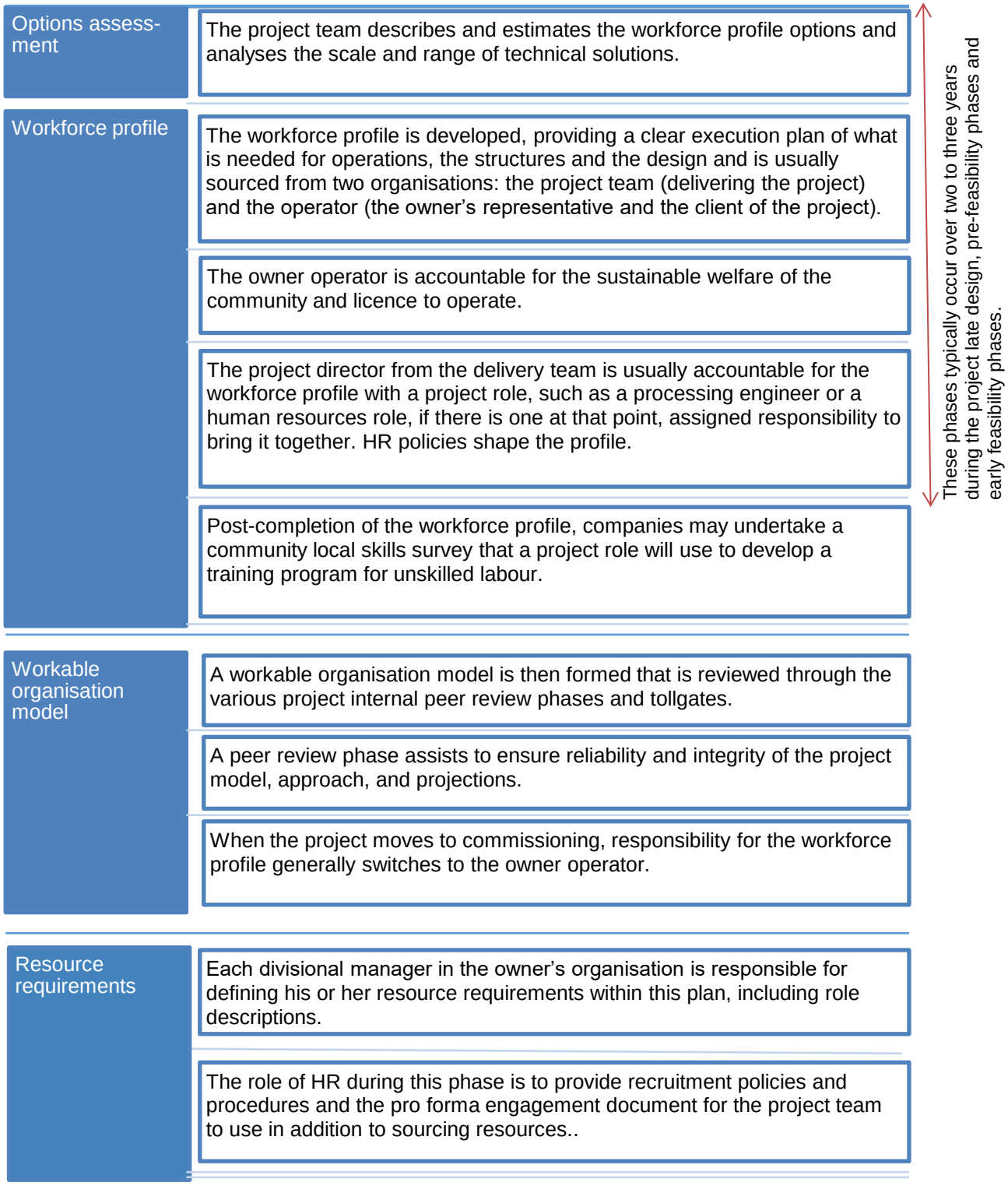


Table 13 Workforce planning phases for the operational workforce[9]

[9] Based on collated responses from interviewees CSR1, CSR2, EXEC1, HR1, HR2 and PD1.

As indicated in Chapter Four, human resources can play a major role in the development of the workforce profile and a workable organisation model, with the extent of the team's involvement depending on the company and project context (EXEC2 and HR2). The HR function can be a strategic partner in the jobs decision-making in high-risk environments where access to people is a fundamental business risk issue (CSR1, CSR3 and HR2). In HR2's previous time with another company in the United Arab Emirates and Malaysia, workforce decisions were identified as a top-three global project business risk linked to skills shortages, social licence to operate, wage costs, and resource nationalism. Strategic emphasis was put on understanding how the availability of local labour, quality, and cost would affect and conversely influence design principles, given local content and participation requirements. In this case, jobs decision-making had significant executive focus and was key to gaining approval with the project owners, because it had a fundamental impact on the cost and schedule.

In some organisations, the HR project team is relatively underdeveloped at pre-feasibility stage, especially for greenfield projects. In this situation, corporate or regional HR personnel or processing engineers can play a bigger role in workforce planning (CSR1 and CSR8). O4's experience (across many projects) is that HR staff are seldom invited to have a seat at the jobs decision-making table, with the workforce options assessment being largely a technical project decision. HR1 considered that risk, community exposure, expectations, the SIA process, the company structure, and the nature of the industry drove HR involvement in local jobs approaches.

6.2.2 Ownership and project operating governance structures

Consistent with the research findings in Chapter Four, interviewees considered that ownership and project operating governance structures add significant complexity to project decision-making at the micro level. Projects are owned by individual companies or more commonly through blended joint venture arrangements between a number of organisations and with government entities. Fundamental differences based on country of origin and the culture can exist between companies as owners and joint venture partners (EXEC2, HR2, O3 and O4). These differences can lead to considerable tension in social performance matters, until the partners reach agreement on the alignment of their systems, policies, and approach to social performance (HR2, O3, SC1 and SC2).

Internal and external EPCM hubs often manage individual and groups of projects on behalf of the company or joint venture partners. Hubs handle the overarching EPCM contract and, depending on their scope, can undertake front-end appraisal studies through to the management of project delivery. Other EPCs and consultants then subcontract to deliver project components. At any one time, resource companies can have many complex and geographically remote large-scale projects at different stages of delivery over commodities, utilising a mix of internal and external hub and joint venture partner approaches (O4 and PD1).

Complex project management arrangements and the relationship between the owner and hub can affect the ability of the hub to contribute to social risk identification and mitigation and local job creation during the design to construction phases. Project executives and directors believed that often there is not proper alignment between the owner's growth strategy and objectives and the hub's KPIs, even when company standards and guidance calls for this. This situation can result in conflicting strategic and tactical priorities and schedules; and the strong potential for a clash of cultures (HR2 and PD1).

These comments from interviewees support the finding in Chapter Four regarding strategic value versus tactical project decision-making. PD1 admitted the issues between the parties often stemmed from the project owner's side, due to the terms of the master service contract incorporating a schedule of cost reimbursable items[10]. The terms can lead hubs to do what the client says, which can undermine their ability to contribute effectively to project development and local employment (PD1). The contract between the parties can, therefore, lead to hubs focussing on getting as much done as quickly as possible, while also using the project as leverage for future projects (SC1, HR2 and PD1). PD1, who held a global head peer review role for two years for two tier-one resource companies, considered this to be a systemic issue.

[10] A master service contract can take a number of forms for EPCMs. Two options with reimbursable components are a cost plus fixed fee contract or a cost plus incentive fee contract. Under a cost plus fixed fee contract the supplier receives a fixed-fee payment comprising a percentage of the estimated project costs as well as reimbursement for allowable costs. The fixed fee does not change due to supplier performance. With a cost plus incentive fee contract the supplier is reimbursed for allowable costs under the schedule of rates and charges with an incentive fee available based on the attainment of performance objectives. If the final costs of the project differ from the original estimated costs, the owner and the supplier may share costs based on a predetermined split.

There is growing evidence of changing practices, however, in locations where politicised local content and participation regulations require more up-front emphasis on local jobs and where hubs have extensive complex, large-scale project delivery experience in similar settings. Historically, companies have experienced tensions in getting the right local employment requirements in hub contracts and procedures, but their understanding and approaches are evolving (CSR3, CSR6, and SC1). SC1 provided the example of PNG where, due to legislative requirements, local content and participation is given a higher priority by some businesses and hardwired into contracts. HR2 had a positive experience during the construction phase with a hub in a regional area in Australia undergoing massive project expansion. The hub had considerable experience across a multitude of projects and social contexts, increasing the members' sophistication in considering local employment and the social context over a host of company, industry and locational contexts (HR2). This knowledge, however, did come at a significant price premium for the project (HR2).

Individual EPC/M providers to the main hub arrangement may also only identify and deliver local employment if it is explicit in the terms of the service agreement (CSR6, GS1, O4 and PD1). Decisions to engage other EPC/Ms are made early in the project process (design and pre-feasibility study onwards) usually based on a fixed price and potentially with financial incentives for delivering the project ahead of schedule and below cost (GS1). Companies regularly fracture the scope of contracts with individual EPCs who are not responsible for considering the social context of the technical aspects of their component of the project (GS1). The opportunity for a proactive approach or mitigation of social impacts by clever design ideas from the EPC is, therefore, extremely limited, with companies tending to conceptualise the social context in-house (GS1). Unless there are social specifications and social objectives and associated tollgating protocols for the EPC or internal project team, these ideas will not feed through to the project design (GS1). CSR6, GS1 and PD1 believed that EPCs and key suppliers often recognise the need – and have the tools – to contribute to local employment or broader areas of sustainability performance, but they cannot (and do not) tender or deliver in these areas unless it is explicit in the tender documentation.

6.2.3 Consideration of social risks in jobs decision-making processes

The recent elevation by boards of the importance of considering social risks in the attainment of a social licence to operate is flowing through to the consideration of the social context in project decision-making (CSR3, CSR5, CSR6, CSR7, CSR8, EXEC1, EXEC2, O1, O2, O5

and PD1). Project teams can, however, be unsure how to go about this in practice (CSR7). In the past, boards knew they needed to understand risks based on the value attached to the risk, such as cost, time, and delays. Starting from the global financial crisis, boards have demonstrated more awareness that social risks can kill a project if not well managed (O1 and O5). An issue for executives, however, is how to promulgate this awareness and delegate authority across the governance structure to inform the project decision-making model (HR2, O1 and O2).

The executive and the asset (owner's representative and client and operator of the project) recognise that they need to understand social risks better. The asset, however, has responsibility for project decisions and considering social risks and trade-offs at any point (O1). The approach at the asset and operational level, therefore, ultimately influences how well social risks are identified, managed, and mitigated within projects (HR2). The operational and project levels can receive inconsistent signals as evidenced by key internal project drivers such as the KPIs set from executives and the asset. The minimisation and deferral of cash and capital outlay and decreasing the impact on short-term cash flow is the asset's focus and can be incompatible with longer-term project objectives (O1 and O3).

Several interviewees noted the executive focus at the asset level on social risk and how the emphasis on risk transitions through to project delivery and project KPIs could differ depending on the commodity and country context. In Canada, there is a heavy emphasis (by companies and governments) on social risk that is partly cultural and partly related to indigenous land rights issues and regulations (SC3). Executives and project roles more broadly in the sector will also tend to have a closer line of sight in technical areas that they understand in detail (such as safety). They can be less directive in areas outside their comfort zone, such as the relationship with the community unless it is an ingrained expectation required by legislation (as in the Canadian example) (SC2). Executives and project directors may, therefore, potentially delegate authority too low in the organisation to identify and manage social risks (O2 and SC2).

Many of the CSR interviewees believed CSR roles are becoming more involved in social risk assessments to support company decision-making, but the extent to which assessments are effective at influencing project design and jobs decisions is context specific. During the project design and approvals phases, social risk assessments are evolving to influence

project design, with the social team increasing their influence on the project team (CSR7). These personnel, however, may not be involved at key points to influence the design or to identify the full potential impact of social risks. This situation means that the social risks may not receive the correct weightings and, therefore, do not inform jobs decision-making processes (CSR1, CSR2, CSR4, CSR8, GS1, O2, SC1, SC2 and SC3). GS1 had experienced many times that social risks are assigned mostly to the CSR team to mitigate from an engagement or community investment and development perspective in subsequent project phases. The social response, therefore, represents a company mitigation measure rather than influencing a project design change (GS1).

EXEC1 believed "it is always easy to justify more social risk assessment and analysis up-front, ahead of the investment decision (and with the benefit of hindsight), but in most cases this investment would risk being wasted during the early phases of the project design". EXEC1 provided an example of a project in Asia where the focus of the team was on securing approvals, which affected their behaviour:

> *In Asia, the risk assessment identified a number of significant social issues. The social analysis had been undertaken and recommendations made for areas where we did not currently have identified mitigation measures, but they were ignored at that time as the overall prize was too large to ignore from a timing and market perspective.*

GS1 and O2 observed that projects could struggle to go above procedural compliance to building the social aspect, values, and costs into the net present value analysis, scenario assessment, and evaluation of project options, because these aspects are difficult to quantify in monetary terms or are not considered material. O2 and G1 recommended a strengthened empirical model (combining quantitative and qualitative social analysis), to compensate for inadequacies within the financial analysis, enabling a much higher level of judgement of social issues and risks in project decision-making. G1 noted that "[i]f we can accurately calculate the contingency attributable to social risk, then we could resolve to mitigate and have a lower capital cost". The inclusion of strengthened quantitative and qualitative analysis in the assessment of social risks would enable the organisation to include a social risk contingency narrative in the quantitative analysis from the outset (GS1). CSR8 concurred with this view, believing that project-decision-makers should adopt a lifecycle cost understanding. This approach would consider project design alternatives from a total cost perspective (i.e., capital and operating expenses of project delivery,

management, closure, and divestment, including the quantification of likely community-related costs to the project such as conflict and shutdowns associated with company decisions). According to CSR8, "[s]ome things must change in the project management system (and the interface with governments) that are much deeper for the administration of projects than the timeline and economic returns". A similar view was expressed by O2:

> *Sensitivities do not take into account the magnitude of social risks and issues – these issues have a go/no go that can dwarf the sensitivities. Companies use a linear framework project financial decision-making model, but this approach does not reflect the holistic nature of social issues, which requires a more of a systems approach.*

6.2.4 Company policies and standards and jobs decision-making

Company policies and standards guide the development and implementation of large-scale project jobs decision-making for tier-one companies. These policies and standards (developed in general alignment with the IFC Performance Standards and other international conventions), may include the requirement to consider the social context and local jobs, supported by robust due diligence and risk assurance auditing procedures to monitor compliance (CSR1, CSR3, CSR4, CSR5, CSR7 and PD1). However, implementation of the standards for projects is variable and often poor, with company ownership and governance structures, size and cultures of the respective project parties making it difficult to incorporate social considerations in practice (CSR1, CSR4, EXEC1, HR2 and O4). EXEC1 reflected that project teams can also have the perceived (and unwritten) authority to ignore advice from the support functions, compounding implementation issues for policies and standards and the consideration of social risks. Another observation from EXEC1 is that "[p]roject teams like to make their own mistakes". This view by EXEC1 reinforces the findings in Chapter Four regarding project directors and teams and how they make project decisions.

CSR1, CSR8, and O1 believed the previously mentioned cultural differences at the governance project level between the owners and joint venture parties could significantly impact the implementation of policies and standards. When investors and project owners from different cultures enter new countries, it can take a while for them to adapt their practices and standards to the host's requirements and expectations (CSR8 and O1). This occurrence is most evident when requirements in areas like safety, environment, and human rights are considerably higher in the host country (such as Australia and most developed economies) than the home country of the investor (e.g., China and India) (O1). Conversely,

where higher standards are entrenched in the investor/owner's country and not in the location of the project, bringing these stricter standards to the project site can improve performance and practices (O1).

CSR1 believed smaller companies tend to be better at integrating policy with practice due their flatter structures, size, and scale "and possibly because it is harder for them to be immune to the environment outside of their fence". These companies, along with the newer non-traditional, tier-one companies, tend to be more agile than large corporations; therefore, they can be more responsive to community needs and local content and participation regulations (CSR2). F2 acknowledged, however, (drawing from a multitude of project examples in different country and company contexts) that this is not a consistent pattern.

6.2.5 KPIs and project decision-making

Meeting KPIs flowing from the owners to the asset can be a significant driver for project directors and teams, providing substantial financial rewards as summarised in Chapter Four and referenced above. Bonuses aligned with these KPIs can include share allocations and a percentage of salary (e.g., from 10 to over 40 percent depending on the role level). KPIs for project roles will typically cover safety, securing approvals, and delivering the project on time and within budget. Project personnel, especially those working in a developing country context, may also be expected to meet one or more broad social KPIs related to health, safety, environment, and community (HSEC) engagement and security more generally (CSR7 and PD1). PD2 provided an example from an Australian project. Eighty-five percent of the total bonus related to safety and technical aspects; ten percent to governance and systems (such as risk, reporting, internal positive feedback on interaction, and social management plan adherence, including to stakeholder engagement requirements); and the remaining five percent to engaging in broader dialogue initiatives with communities and government.

Social KPIs can potentially conflict with other KPIs and have a much smaller weighting than the technical KPIs, reducing their influence relative to other priorities. SC3 believed the lack of alignment of KPIs between project approvals teams and the project development or construction teams could breed an attitude of "not my problem":

[You] can see the 'how' component of the workforce being passed to the next team; i.e., approvals teams are focused on getting the approvals, not on how the development will do what it says it will do. The focus on the workforce is, therefore, rarely addressed in approvals (i.e., EIS phase).

During the final approvals phase and in preparation for and during the construction phase, the incentives for the project team to deliver on budget and on time mostly drive jobs decision-making (O4). This situation can limit local employment opportunities because it takes time to upskill people, especially in developing economies. According to 04, "unless there are external drivers related to local content and participation, companies will generally elect to go the other road and bring in large external workforces during construction". EXEC1 believed that this approach, while standard practice in the industry, potentially represents a lost opportunity. The construction workforce can provide the enormous potential to identify people with necessary initiative and skills for the operational phase, given that large-scale projects typically take three to five years to construct (EXEC1).

6.2.6 Stakeholder engagement processes to support jobs decision-making

Standards will usually require the development of a stakeholder engagement plan to reflect the interests and influences of stakeholders to meet company, project financier, and regulatory requirements. Depending on the company and project, this plan may initially integrate the interests of various external and internal stakeholders at a high level in preparation for the project approvals phase. Engagement on jobs with communities may or may not be progressively added to the plan and will depend on the project context and the appetite of companies.

Access to jobs is a key consideration for local communities from the beginning of the project (considered in more detail later in this chapter). From the exploration phase onwards, access to local jobs comes up early in discussions with local communities and (in developing economies in particular) is a hot political issue (CSR7). Exploration is usually the first group to engage directly with communities and establish local employment and services to support their activities (EXEC1). As the study process commences, greater on-the-ground activity takes place with both exploration and early construction and the establishment of support infrastructure. Local employment and expectations of jobs typically grow as the study progresses.

Most interviewees had witnessed and participated in an evolution of engagement with communities and stakeholders during these early phases (CSR5, CSR6, CSR7, CSR8, EXEC1, EXEC2, F2, O1, O3, O5, PD1 and PD2). The extent of community involvement by a company in the identification and pursuit of local jobs opportunities from early project phases will depend, on the location, attitudes of the asset and project team, social risks associated with the project and the various controls to manage the risks (PD1). CSR5, PD1, and SC3 acknowledged local engagement needed time and effort to get right; otherwise, NGOs and social activists can come in with broader politicised agendas.

Some companies (particularly at the corporate level) may be risk averse to extensive stakeholder engagement during the project design and approvals phases, especially in developing economies, conflict-prone and fragile states where they do not have prior project experience. CSR4 believed that there is most definitely a need to undertake more up-front work with communities around the reality of access to jobs and expectations. Companies, however, can tend to be reactive in their response to community concerns rather than proactive resulting in a "PR message approach but there is lost trust" (CSR4). CSR8 provided the example of a recent Asian project where there was considerable reluctance to engage with communities and raise expectations on workforce opportunities until the attainment of final project investment approvals:

> *The fallout from this low-key approach was that we only had two months to engage and we started experiencing impacts; and it was difficult to have a dialogue with significant trust issues coming to the surface as communities did not participate in decision-making.*

At other times the corporate level can make uninformed public declarations to analysts, governments, and the global community in stakeholder engagement forums (CSR1 and PD1). The tension inherent in the standardisation and localisation of approaches to stakeholder engagement and project commitments can lead to unintended adverse consequences for companies, as illustrated by this example from CSR1:

> *Conversations and commitments can be made at the executive level (e.g., chairman of the board) to the president of the country or some other important country dignitary to secure tenure – the licence to seek approvals, which can raise political expectations. At the community level, we are trying to manage expectations.*

6.2.7 CSR personnel involvement in jobs decision-making processes

At the present time, the larger resource companies – and many larger contractors – generally have designated CSR and social specialist roles. However, the influence of these roles across the project governance structure is often limited in the project development stage.

The technical process-oriented approach to jobs decision-making can lead to the social context being treated as something to be mitigated rather than considered strategically in the project design (CSR4, CSR5, CSR8, HR1, O4 and SC3). This situation can result in project teams not recognising the importance of involving CSR roles from the outset (CSR4). Some interviewees observed that CSR roles are often not formally embedded in the process of decision-making during the early options assessment and workforce profile setting phases (CSR4, CSR8, HR1, O4 and SC3). This situation can have a negative impact on the perceived legitimacy of the CSR role by the project team to advise on the social context (GS1). Instead, these roles are more likely to be involved in remediation of issues during steady-state operations (CSR5 and CSR8).

The mandatory inclusion of a CSR representative in the project planning process can assist in addressing this situation (CSR7). CSR5 and CSR8 had both experienced situations where the social team interacted and intersected well with the work of the project team, but there is ultimately always a battle between cutting the outlay on the project and getting the project approved. EXEC1 noted that, in principle, the project team should include representation from a range of functions (such as HSEC, HR, supply and external affairs). EXEC1 considered that the social context was only one key aspect required by the project leader for incorporation into project plans and that CSR functional teams operate well in a matrix, where the social project team has strong links to corporate social roles (EXEC1).

CSR6 acknowledged that competing business imperatives in streamlining suppliers, sourcing at the cheapest cost, and supporting local communities can impede the ability of the functions to work together to assign responsibilities and establish the trade-offs for the delivery of local content and participation programs. CSR6's organisation had a framework for considering local content and participation, but it was not fully embedded and was contingent again on networks and relationships and therefore the cultural views and

perceptions of the technical team. CSR6 acknowledged that there was still a degree of “call the social performance team when it is too late to do anything”.

I asked the CSR interviewees and social consultants if they knew how and why companies make workforce decisions. All the social consultants and a third of the CSR interviewees were unsure of technical jobs decision-making processes, providing further evidence that social roles may not be embedded in the approach to incorporating the social context. SC2 and SC3 had both developed numerous SIAs and analysed the social impacts of projects but could not outline company jobs decision-making processes. SC2 could only recall seeing workforce figures at a high level (i.e., total numbers) but never a workforce plan to analyse the social impacts in a more interlinked way. Where CSR roles and social consultants do not understand the workforce decision-making process and the business drivers, this will further restrict their ability to provide strategic social advice (CSR4 and O4). Without this deep knowledge, social roles can struggle to influence and inform job decisions (or the project design) in a way that connects the social context with business imperatives (CSR4 and CSR8).

Depending on the organisational structure, budget control over socially-related project expenditure often sits with project directors rather than the social team. The social team can then struggle to secure funds for proactive early social analysis, whereas work technical reports are mostly better-funded (CSR8). Projects, therefore, later bear the cost of not having in place adequate social baseline research to inform jobs decision-making (CSR4 and CSR8) (explored further in Chapter Eight).

Some companies are bringing CSR roles in earlier, although it is unclear the extent to which these roles are contributing to project design decisions, as opposed to providing advice on the social context and mitigation measures. Several interviewees observed that CSR roles are getting involved earlier in helping scope out social impacts and requirements relating to jobs decision-making, especially in the period from exploration through to pre-feasibility. However, sometimes this can just involve undertaking a quick scan or advising someone from HR after the workforce profile has been established and when the commitments require action (CSR1, CSR3 and CSR7). CSR1 and F1 noted the transition to feasibility and approvals could often result in a massive slide from project employment ideals to practice

when ‘reality’ intervenes, especially when global EPCMs are involved. CSR1 shared their experience:

> *As the EIS/SIA progress, commitments can become more watered down and risk averse, which often relates to cost and time pressures, with jobs a good indicator of this trend.*

O4 had been on the receiving end, brought in post-approvals to work out how to ensure the localisation of the workforce to the greatest extent possible to meet government and community commitments aligned with the workforce profile:

> *For example, decision X is made (I have observed many times where the decision has not been well thought through) and we are brought in to work out what we have to do to enable that. In most organisations, in my experience, there are no overt leaders for local employment; therefore, it can be left with the social team as to how to make it happen post-approvals. We then have to work informally across functions, with it being relationship-driven, and leadership (e.g., project directors and construction managers) may not necessarily have bought into it, as they may not get the local jobs imperative. The difficulty can, therefore, be how to achieve the local jobs commitment without formal leadership.*

6.2.8 Institutional factors and consideration of the social context

This section summarises findings from the above discussion about how internal company cultural-cognitive, normative and regulative processes can constrain or enable the consideration of the social context in jobs decision-making. Aspects examined include the technical jobs decision-making process, the project governance structure, the consideration of social risks, the role of organisational policies and standards, influence of KPIs, stakeholder engagement approaches and involvement of CSR personnel.

Overall, the data confirms that formal and informal jobs decision-making processes, as currently structured, have the potential to constrain the consideration of the social context significantly. Across the different organisational levels, cascading to the project team, there can be a lack of alignment of cultural-cognitive values and expectations for why and how companies should consider the social context in jobs decision-making and no clear leader for local employment. The lack of leadership can make it difficult to achieve commitment and ownership for a more considered, social performance approach. A clash of cultures over

the various organisational and project levels can further compound the lack of alignment. Other salient findings include:

- The inconsistent or mechanical application of social performance regulative standards combined with rigidities in contracts and the schedule with the EPCMs can constrain the ability of projects to implement customised local employment systems.
- Project teams often have the authority to ignore advice from support functions, which can lead to a further lack of alignment (EXEC1).
- CSR roles are often not formally embedded in the normative jobs decision-making structures or involved in social risks assessments at the right time to influence company approaches.
- When the project director controls the budget, CSR roles can struggle to get timely access to funds to proactively analyse social issues and identify opportunities to inform jobs decision-making and the project design.
- Where CSR roles do not formally embed in the jobs decision-making process, it is harder for people in these functions to build a strong understanding of the business drivers associated with jobs decision-making. This situation makes it more difficult for these roles to have input into key strategic decisions relating to jobs.

At the same time, there is growing evidence of changing practices in some areas. There is evidence of increased cultural-cognitive understanding (within the project team and more broadly at the executive level) of the issues associated with not considering the social context connected to jobs decision-making early enough in the design and approvals process. The formal regulative project structures incorporating internal and external peer review can provide an avenue and tollgates for embedding CSR roles during the project design, approvals and construction phases to enable greater consideration to the social context in line with project risks. As companies increase their experience of developing and delivering large-scale projects across the different community and cultural contexts they are growing in their understanding of the need to engage earlier with communities. Similarly, there is now more appetite to communicate earlier with stakeholders on what the project will and will not deliver in order to manage expectations. Heightened external and internal stakeholder expectations have the potential to change business practice through coercive and normative isomorphic pressure on companies. The following section of this chapter explores these drivers and expectations in more detail.

6.3 External and internal influences: weightings and trade-offs

Chapter Two and Four summarised a range of external and internal drivers that affect the consideration of the social context in jobs decision-making. This section uses the semi-structured interviewee responses and findings from the literature to assess external and internal influences on why companies consider the social context in jobs decision-making. Companies will weight these influences and rebalance them (either informally or using formal strategic project value criteria) as the project progresses, and as more information comes to hand. The weighting process considers the priority of each influence, the level of political and societal pressure, and whether approaches are necessary to compensate for distorting influences (i.e., competing imperatives between the use of automation and prescriptive local content and participation requirements).

Table 14 (below) summarises the external and internal drivers against the main institutional theory elements at play of 'regulative, normative and cultural-cognitive' or the area of 'coercive' isomorphic pressure[11].

Table 14 External and internal institutional drivers

Institutional drivers			
External	**Main element at play**	**Internal**	**Main elements at play**
The project financing environment	Regulative	Strategic project value – business case	Normative
Shareholder expectations	Coercive isomorphic pressure	Productivity and a reduction in costs	Normative
Local content and participation regulations	Regulative	Non-resident workforce structures	Normative
Community expectations	Cultural-cognitive and coercive isomorphic pressure	Technology substitution for labour	Normative
Industrial relations and social activism	Coercive isomorphic pressure	Skills shortages	Normative

[11] Regulative element (e.g., rules, regulations, policies, monitoring and sanctioning activities). Normative element (e.g., embedded, prescriptive and obligatory work norms, habits and ethics). Cultural cognitive element (e.g., shared values, beliefs, assumptions, understanding and framing to obtain meaning). Coercive isomorphic pressure (e.g., vocal, powerful and critical pressure by stakeholders to conform to socially acceptable behaviour).

The below sections present the main influences on jobs decision-making and how this intersects with the social context.

6.3.1 Normative internal: favourable business case

During the project design and approvals phase, companies focus on achieving a sound business case within the confines of state regulatory requirements. The term 'business case' in this context, drawing from Chapter Four, means the cost of labour as well as related broader strategic considerations (e.g., reliability of labour, productivity, risk management, use of technology, workforce optimisation structures). These considerations intersect with the social context.

The cost of labour is a major driver in jobs decision-making. According to several interviewees, companies usually prefer to employ locally during operations if the skills are available as it is generally less expensive, especially in a developing economy context (CSR1, CSR3, CSR7, EXEC1, EXEC2, F1, HR2, O1, O4 and PD1). In most instances project teams will define, 'local' as 'nearby' (covered further in Chapter Eight) but as referenced in Chapter Two 'local' for jobs purposes under regulation can be ill-defined and refer to the broader national level. Companies can also engage 'expatriates' to bring specific business expertise and skills (such as executives and project execution) (EXEC2). Project expatriates can be expensive with these roles redirected to other projects when the current project enters a steady state (EXEC2). Some jurisdictions provide tax incentives to support workforce localisation, making it more attractive to hire locally. Conversely, in some cases, penalties can be imposed for noncompliance with local content and participation targets (in accordance with the Ghana Regulatory example in Chapter Two). The project business case and the situation at the time (i.e. cost, prescriptive local content and participation requirements and penalties and the level of militant unionism) would determine the extent of the pursuit of resident or non-resident workforce options.

Chapter Four noted the increasing emphasis on automation by some resource companies. EXEC1, HR2, O1 and O2 believed that full automation of jobs is not currently a major focus for most greenfield projects unless it provides greater safety, cost and productivity improvements. An example of more emphasis on automation is when labour costs are high and workers in limited demand (as was the case in Australia and Canada during the construction boom) and where there is no corresponding increase in productivity. In this

situation, where projects and existing operations can struggle to get access to workers, companies are more likely to look for opportunities to re-engineer processes or introduce technology to reduce labour requirements (HR2 and O1). HR2 gave an example for a brownfield project:

> *The company I was working for redesigned a brownfield project to put in remote systems to remove labour from the process… The automated process enabled us to extend equipment life and reliability to increase the life of the asset, which comes down to efficiency and economics.*

At other times, during the project approvals and construction phases, companies will lobby governments for relaxation of labour laws, to bring in large quantities and potentially cheaper contract labour (covered in Chapter Four for the oil and gas industry in Australia).

In a developing economy, where wages are lower than developed economies and unemployment is high, industry (and government) usually elect to design projects to use local labour because it is cheaper than technology, as well as providing employment opportunities for local communities (O2). HR2 provided an example:

> *In the United Arab Emirates, we deliberately did not put in lots of technology, as labour was cheaper. In this instance, there was 75 percent local labour. For us, the employment decision was based on social licence to operate considerations, issue mitigation and managing risks.*

O1 referenced that an emerging issue in developing economies compounding pressures for companies to automate is real wage inflation with no corresponding increase in productivity. At the same time, companies must balance this driver with political pressures for local jobs (O1). O2 outlined how companies can enter a location based on a low-tech operation but, at some point, based on experience in numerous projects and places, labour costs will inevitably rise. This situation can lead to an uncompetitive environment during the operations phase (O1 and O2). This trend played out in Brazil with smelters being competitive and having large local labour workforces but, with rising wage costs, they became less competitive (O2). A similar situation is emerging in South Africa with deep gold mining based on a model of cheap labour (O1). A key issue for companies is, therefore, how to preserve overall costs and deal with the potential for a massive increase in labour costs by getting productivity offsets (O1). Substituting capital for labour could be the solution but, in

developing economies with high unemployment, this approach can raise significant political problems for companies (O1).

HR2, O1 and O2 acknowledged (consistent with Chapter Four) that increased automation will change the composition of the workforce and nature of the work with less demand for unskilled labour, the area developing economies can attain the most benefit. HR2 and O2 believed that even with this change, people will remain central to operations, and in remote indigenous and local communities that companies would still try to give roles to the local communities where they operate. An advantage for the sector during growth periods is that "where we have trouble gaining access to labour, fewer people will be required, and the business can grow based on the existing workforce" (O2).

While the literature (in Chapter Four) referenced skills shortages as a key driver and risk for company jobs decision-making, O1 acknowledged the issue had gone into hibernation in the current downturn. O1 concurred that skills shortages would continue to be a long-term issue. HR2 had witnessed increased line of sight by the board to the problem of skills shortages connected to organisational sustainability that in turn was driving more strategic involvement of the HR function in large-scale project jobs decision-making.

This section highlighted that the cost of labour is a major consideration in the development of a favourable business case. Companies will experience conflicting tensions in jobs decision-making between hiring local, requirements under the legislation, political and community expectations, and the increased use of technology and automation to reduce labour costs. The social context (regarding access to workers and community expectations) is, therefore, inherently intertwined with the formation of the project business case.

6.3.2 Regulative external: attaining project finance approvals

Project finance predictability (or lack thereof) is an issue that flows through to affect the project, shareholders, and communities including the extent to which companies consider the social context in jobs decision-making. O3 outlined how tier-one and smaller companies differ in their ability to access project finance. Tier-one companies can substantially fund project studies through to a bankable project feasibility from their balance sheets and cash flows, but can also form joint venture arrangements with other (often minority) partners to

secure market access or specific expertise. Few (if any) companies finance the capital cost of projects entirely from their balance sheet, with risk mitigation strategies focused on diversifying balance sheet capital over projects, countries and commodities (O5). O3 identified that smaller companies do not have that luxury, often requiring some form of either equity or joint venture funding after the pre-feasibility study (usually before the completion of a bankable or definitive feasibility study).

As outlined in Chapter Two, large-scale projects can obtain financing from a mix of bank, equity, DFI and institutional sources with banks loans and equity making up the majority of project finance. Once financiers become involved, as part of the investment appraisal and approvals process, they can regulate the velocity of project decision-making through the establishment of dense project milestones linked to debt financing arrangements (O5). Companies are then in a race to achieve financier milestones and deadlines to signal substantive progress to shareholders and market watchers and to avoid penalties (O5). This view is consistent with the findings in Chapter Two regarding project proponents seeking to reduce the cost of finance and leverage. The project financing environment can, therefore, send inconsistent signals regarding the consideration of the social context in project decision-making, as demonstrated by the following observations from O5:

> *The financing structure can work against companies taking a longer-term view (in areas such as jobs), which can be a potential drag on the achievement of milestones. An example is needing to spend more time on engagement to establish priorities and determine project commitments as part of the project approvals process. Communities and governments, however, hold companies accountable for jobs. These competing dynamics and imperatives associated with financing structures are not well understood by key stakeholders and internally within companies. Governments, in particular, can get frustrated and perceive that companies are 'dancing with the financiers'.*

O5 believed banks view community benefit sharing arrangements (including local jobs) as a risk mitigation instrument, and, less so, as a long-range benefit sharing mechanism; this is, despite being signed up to various international financier conventions such as the Equator Principles. The observation by O5 is consistent with the analysis of research in Chapter Two. In O5's view, the commercial banks focus on local jobs connected to the technical matters of productivity, wages costs and reputation. These banks do not appear to

understand why an emphasis on benefits, regional development and jobs is crucial to the long-term sustainability of the operation (O5).

F1 and O4 considered DFIs an important project funding mechanism in developing countries who place more emphasis on social risks and project benefits than banks that in turn, influences company behaviour. Companies will take a stronger risk management approach to the inclusion and consideration of the social context and compliance in areas such as jobs and human rights when DFIs are involved (O4). Over the last five years, opportunities to source goods and services locally (including jobs) have become a vital consideration for DFIs due to the capital intensiveness of the resource sector (F1). DFIs will often have an investment arm that finances projects, and a technical arm to support companies to establish local content and participation and investment programs and to assess social risks (F1). DFI involvement and expert advice can assist project proponents to manage social project risks and to demonstrate good ESG practice to external stakeholders that also contributes to building a good relationship with local communities (F1 and O4). Unfortunately, in many instances DFIs become involved when much of the project design is complete, a situation limiting their ability to influence the design (F1). CSR6 believed that a bonus of DFI involvement for CSR roles is that application of the IFC Performance Standards can assist CSR personnel to influence company practices – “especially if you come in at a later stage and can’t front-end load due diligence it enables you to have the imprimatur to influence”.

According to CSR7, most tier one companies, irrespective of the involvement of DFIs, will develop projects in general accordance with the IFC Performance Standards (and as previously mentioned have internal policies and standards to support compliance). The standards can, however, be perceived by some companies as quite onerous as they include extensive SIA/EIS preparatory work, host community engagement and transparency requirements such as making contracts public. Some companies do not like to provide this level of detail and transparency, and the cost of compliance can also be considerable (F1 and O4).

While project financiers directly influence how and the extent to which companies consider the social context in project decision-making, institutional investors more broadly affect the allocation of capital to projects by corporations. Institutional investors expect companies to place more emphasis on the management of risks and cost minimisation (as identified in

Chapter Two). O1 and O2 believed that shorter- and medium-term institutional investors, including hedge and managed funds traders, are similar to commercial bank lenders, and do not place significant emphasis on jobs and benefits in their investment decision-making. Analysts and shorter-term shareholders put (high coercive isomorphic) pressure on boards for shorter-term financial returns based on their position (O1 and O2). For projects, tier-one companies and boards have, therefore, focused on short-term cash flow and return on capital employed once in the operating phase and had been scrupulous in their allocation of capital, restructuring their expenditure due to this heightened scrutiny by shareholders (O1, O2 and O3). Shareholders have been indiscriminate as to where money is made and, therefore, largely indifferent to the source of savings that flows through to influence project decision-making (O1, O2 and O3). Executives manage longer-term growth opportunities and project development very delicately in line with these shorter-term shareholder expectations (O1 and O2)[12].

Chapter Two highlighted that long-term institutional investors, such as superannuation fund providers, are growing in prominence as company investors and are more focused on ESG matters than short-term traders. F2 and O5 believed the influence of these stakeholders on business practice would grow over time. F1 and F2 acknowledged that institutional investors are typically not prepared to trade-off financial returns for better ESG performance but if a fund has a long-term time frame, there can be more of an appetite to consider longer-term yields. F2 recommended that companies will need to continue to demonstrate greater ability to anticipate, plan for and manage sustainability risks, stakeholder expectations, project impacts and the distribution of benefits in line with longer-term institutional investor expectations.

This section indicates that project financiers exert high influence on project decision-makers who seek to access finance to fund the development of the project and construction. Project financiers and investors will scrutinise labour productivity and costs, with automation being an attractive option to provide project efficiency and effectiveness gains in these areas. Compliance with applicable local content and participation laws and reputational risks are other important considerations. DFIs will emphasise long-term benefit sharing, but the other

[12] EY (2014) examines the risks associated with balancing short-term investor imperatives and capital allocation for growth projects. An EY report by Olesiński et al. (2012) provides an overview of the drivers of short-term company behaviour connected to investor expectations.

financier classes will tend only to consider this aspect to the extent that it represents a material project risk. The financier class will, therefore, play a major role in the determination of the extent that companies emphasise the social context. Irrespective of this requirement, all the areas considered necessary by financiers (i.e., cost, productivity, risk management, and for some, benefits), is directly influenced by and connected to the social context.

6.3.3 Regulative external: local content and participation

Project decision-makers will consider regulations, political agendas and representation of the constituents and assess socio-economic opportunities (including jobs) and impacts to the extent required under legislation (CSR1, CSR8, EXEC1 and F3). Local content and participation requirements can result in projects setting specific local employment targets, but can be more aspirational in other instances (CSR3). In Africa, the Mineral Agreement project negotiations between CSR3's company and country government included specific local employment and nationalisation of expatriate role targets. For another African project, the local employment target was 30 percent (CSR3). In Indonesia, PD1's company had set and sustained a local employment target of 10 percent from the construction phase onwards through to the operations phase. In an Australian context, some projects can have indigenous employment goals driven by Indigenous Land Use Agreements (CSR3 and O4). CSR8 and EXEC1 believed that while companies can have good local content and participation intentions they had both experienced organisations rushing to set overly ambitious and prescriptive local employment targets in response to geopolitical pressures and regulations. These targets can, in turn, contribute to unrealistic expectations. EXEC1 provided an example:

> *We acquired a project from another company. The other company had agreed to very high local employment targets for the construction and operational phases. While high operational phase targets are generally achievable over time (as any company would prefer to use local employment rather than expensive expats), for the construction phase, targets can be problematic to achieve. I understand that the original owner considered the construction targets unachievable and had planned to pay a fine for noncompliance. Our policy, however, was to honour the commitment. The high targets had significantly inflated community expectations. We had the best intentions in committing to achieve them, but inevitably for the construction phase, we could not meet them, which cascaded to significant stakeholder dissatisfaction and negative impact on our project at that point.*

CSR8 provided another example:

> *A decade ago, our company was facing lots of activism by groups in our host country. At the same time, local content and participation became one of the most important indicators considered by the government. The project approvals phase became an opportunity for governments to push (sometimes) politicised local content regulations, considered in tandem to very high unemployment. The learning from this situation demonstrated to us that the board needs to consider more strategically the local cultural context of where they are operating and seeking to implement projects not just agreeing to approaches or negotiating the regulatory and legal aspects of projects to get approvals.*

The feedback from interviewees indicates that local content and participation regulations combine with the threat of increased resource nationalism to influence jobs decision-making. Political expectations, sovereign risk, and local content and participation regulatory requirements affect the extent that companies make commitments to the use of local workers. During the project design and approvals phases, jobs decisions have the potential to impact companies securing and maintaining timely and project-conducive approvals. The social context is, therefore, directly connected to 'how and why' companies make jobs decisions and stay in compliance with the regulatory imperatives and political expectations.

6.3.4 Cultural-cognitive: community expectations and beliefs

The above sections highlighted that jobs decisions have competing drivers and imperatives (e.g., the business case, regulatory and political and community expectations) (O1). Companies focus on maximisation of the portfolio and resource with a focus on securing the prize of the project and its delivery on time and schedule (CSR8). Project teams can receive inconsistent messages through the project governance structure emphasising the containment of costs and truncation of time during the approvals phase of the project (O1 and PD1). At the same time, the goal of attaining a social licence to operate can be a point in time position with companies most concerned about the local community and their expectations, and those stakeholders who can "kill the project" (O1).

High stakeholder expectations can lead to high coercive isomorphic pressure on companies connected to the external cultural-cognitive values and beliefs of communities of their right to obtain a job and that the company has an obligation to provide them with one. These stakeholders seek access to employment and socio-economic opportunities as well as

proactive management of project impacts by the company. Local communities in fragile states and high-conflict zones can exert considerable pressure on companies, especially when combined with high government expectations, formal regulations, and social activism. The consideration of the social context will, therefore, be assessed and balanced against the probability of conflict with the potential to disrupt the project.

A common theme across interviewees (consistent with the finding in Chapter Two) was the recognition that communities in developing and developed countries seek a legacy, and one of the fundamental benefits they expect is access to local jobs (CSR1, CSR6, CSR7, CSR8, EXEC1, EXEC2, PD1, F2 and HR2). Workforces also expect their employers to do the right thing regarding local employment as do indigenous groups, NGOs and international audiences (CSR8. HR2 and O4). PD1 acknowledged that meeting these expectations could be challenging depending on the life of the project and the local context. Sixteen of the interviewees spoke in detail about the balancing act between optimising local employment while managing unrealistic expectations. Stakeholders can experience significant tension between companies and communities and within corporations and communities as a result of employment decisions. From a DFI perspective, F1 acknowledged that they had not seen a single project where there had not been tension between communities and companies about access to local jobs and that things can get particularly tough with project delays. The interviewees highlighted the importance of proactive engagement with stakeholders from the beginning of projects but acknowledged this could be difficult in practice (as alluded to in the stakeholder engagement section above).

EXEC2 noted that their organisation does not have a difficulty with high local employment expectations in Australia as this mostly mirrors their business drivers. The conflict between expectations and business drivers can become more of an issue in other environments like Indonesia where stringent conditions placed on companies can lead to a ‘tug of war’. “In Abu Dhabi, bringing in non-resident workforces was not an issue due to the low size of the population but in Saudi Arabia, Egypt, and Libya where there is a larger population base, communities expected us to employ locally” (EXEC2).

Project teams can also be inexperienced, resulting in them making inappropriate local jobs commitments in response to community expectations. EXEC1 had observed on many occasions project directors lacking in project leadership and study experience making

inappropriate social commitments as a result of their lack of awareness of the social complexities of projects (EXEC1). EXEC1 explained how "[s]ome 'ride the magic carpet' in terms of leadership – they get tested to see if they can get on and stay on the magic carpet". EXEC1 and PD1 had witnessed situations where whole study teams had not been sufficiently aware of the project process and how best to manage community involvement appropriate for the evaluation stage. Project teams had rushed to make local commitments in the bid to gain early community acceptance (EXEC1 and PD1).

The extensive rollout of a workforce development project is an example of where it is inappropriate to commit to and commence until the project has a viable business case (PD1). In one example cited by EXEC1, the team funded unsustainable levels of community services, infrastructure and local employment from the outset of project development that sent the project into meltdown. Promising and committing too much up-front was inappropriate. The key insight was that "project leaders must firstly look at what needs to be done to develop a viable project and to evaluate the business case through the various stages" (EXEC1). In this example, EXEC1 concluded it was not helpful to the potential business prospects to employ a large number of people at such an early stage. The influx of individuals in search of work greatly complicated land tenure requirements. Expectations also rose leading to a wide range of issues and community concerns. In the short term, the company was popular for employing more people, but the approach created a host of medium and longer-term social issues for the project and community. CSR7 reinforced this view:

> *On one hand, the expectation to manage and start doing skills development training leads to increased expectations and sends a message to the community that they will get jobs whereas many projects do not proceed and go into care and maintenance. Therefore, how much money should we put into these things? It is easy to make a business case with HR, but the challenge is to manage the expectations.*

When companies do invest, however, they still do not always consider up-front how they can build local content and participation while curbing expectations (CSR8). CSR3 provided the example of an Australian project where looseness in the wording of the local indigenous employment agreement led to ambiguity on obligations and expectations. "People expected jobs straight away at the beginning of the operations phase (100 jobs from day 1), yet the intention of the agreement was through our operation's life". SC1 concurred that the situation

had also occurred in PNG, where landowners had high hopes of project jobs from the onset. CSR3 acknowledged the situation could create an ongoing tension, and communities (but also the company) required a clearer understanding of what jobs targets mean, the sequencing of roles and the associated time frames.

CSR1 believed community expectations influence the local employment approach taken by companies during approvals significantly more so than during operations when commitments required implementation. This observation is particularly relevant to developing countries that lack governance mechanisms to monitor the implementation of local employment legislative requirements and targets. In this situation, CSR1 and CSR2 had witnessed where project owners had become complacent and not followed up on commitments. O2 had observed blockades of projects in developing economies – sometimes after these sites were operating for quite a few years. Access to job opportunities (as well as other benefits) was a major issue for these communities that flowed through to the company not obtaining and being unable to renew licences for other country projects (O2). Consistent with the examples provided in Chapter Two, community members had high expectation of local jobs, from the beginning of the project that the company struggled to meet even during stable operations (O2).

By contrast, HR1, whose experience was in a developed economy context, had seen a strong focus on the implementation of initiatives post-approvals, driven by high ongoing community expectations combined with strong government oversight. These experiences reinforce that company experience is not homogenous in this area. HR1 surmised that heightened government reporting requirements kept the local employment commitments at the forefront of the company's agenda. The location of the project in question, in a region where there was already a large existing and planned industry footprint, contributed to ongoing high expectations and stringent monitoring. These expectations had influenced company recruitment and benefits policies, including the development of incentives to attract people to live in the community (HR1).

The analysis suggests that companies, during the project approvals phase, will take a risk management approach to pursuing the attainment of a social licence to operate, supported by addressing community expectations in order to secure licences. If regulatory requirements are not in place, and companies have assessed that the risks of conflict and

not securing approvals are low, then they will place less importance on the social context in jobs decision-making.

6.3.5 Context specific isomorphic pressure: unions and activists

Some interviewees believed industrial relations at the local project level are not generally a significant driver for jobs decision-making by resource companies, as the sector is not heavily unionised (CSR1, CSR2, EXEC2, O1 and O3). “In metals, as long as wages and salaries are pegged at what is reasonable in the region there are few critical issues” with industrial relations able to be managed through constructive relationships (O3). O3 provided a recent Australian example involving farmers interested in working on a project. “The farmers’ focus was on getting a competitive wage (much improved to farm income) in the region and not interested in the unions” (O3). Throughout CSR1’s and O3’s careers over a range of developed and developing economies, they had not experienced an aggressive union environment. “If there was a potential issue, it came down to sitting down and speaking one on one in a mature manner without polarisation of views” (O3).

In some locations, interviewees concurred industrial relations can be an issue (like in South Africa) or where employment is a national and political concern or in certain commodities like coal (CSR1, CSR2, EXEC2 and O1). EXEC2 believed Australia has more industrial relations and union issues than other parts of the world. Across both developed and developing countries, the coal industry experienced quite militant organised labour, and companies are striving for greater industrial peace (CSR1, CSR2, O1 and O3). O1 believed that where organised labour activism exists for countries and commodities, it can be more political, with unions grandstanding and not necessarily seeking genuine local employment outcomes. In these locations, companies may consider FIFO as an option from an industrial relations perspective to gain greater control of the workforce and to change or influence the workforce culture (O1). Large FIFO workforces can also provide workforce choice, capitalise on tax concessions and address social infrastructure constraints (CSR1, CSR3, O1, O3 and PD2).

PD2 reflected that during the resources boom in Australia some companies had focused their efforts for growth projects on building a more collaborative workforce culture based on individual rather than collective agreements. PD2 believed that the approach by one company appeared to place too much attention on this immediate goal with the wider social

impacts and intersection with communities given scant regard. O1 believed overall that notwithstanding locations where companies pursued a targeted strategy to reduce union influence “if it is more cost effective to employ locally this is what companies would try to do (irrespective of the industrial relations regime)”.

Social activists are another institutional stakeholder group that can influence project decision-makers. Chapter Two identified that in some contexts, activists could exert pressure on the project environment, project financiers, government, and shareholders to place greater consideration on CSR and local and regional communities. Interviewees spoke in detail about community expectations and political pressures as well as instances of industrial relations tension but, did not specifically mention social activists in connection to jobs decision-making.

The feedback from interviewees highlighted that industrial relations priorities, as well as pressure from social activists, would influence jobs decision-making in individual countries and sectors. These stakeholder groups and their influence on how companies consider the social context is, therefore, relevant to the extent they can frustrate and delay the approvals process and influence government expectations of local jobs commitments and community antagonism towards the project.

6.4 Conclusion

This chapter has ground the analysis of jobs decision-making processes, and the drivers for these decisions, in the perspectives and current practice of practitioners. In analysing the weightings and influence of external and internal drivers in this chapter, it became evident that the large-scale resource project institutional field comprises multiple institutions each with their own competing and potentially conflicting drivers and agendas. These institutions all have their own regulative, normative, and cultural-cognitive elements and isomorphic pressures that shape the institutionalisation of the social context in jobs decision-making. Companies and project decision-makers can, therefore, be pushed and pulled to respond to and demonstrate substantive progress towards satisfying the agendas of the other institutional players.

The chapter has explored how companies make jobs decisions and whether the processes constrain or conversely enable the consideration of the social context, which addresses

Project Task Four. The analysis concludes that a lack of CSR alignment and understanding of the imperatives to include the social context in jobs decision-making across the project levels during the design and approvals phases constrains the ability to consider the social context. This situation is compounded by CSR roles not being generally embedded in formal jobs decision-making project processes and tollgates to provide this advice at the right time in the process. However, there is evidence of changing practices as companies gain more experience developing and delivering large-scale projects in different community and cultural contexts and become more attuned to the importance of giving greater up-front consideration to the social context. Because jobs decision-making occurs over a multi-year time frame, there is time, in theory, to give adequate consideration to the social context.

The analysis also assessed the influence of a range of normative and regulative external and internal drivers on the consideration of the social context in jobs decision-making, concluding that internal business case imperatives exert the highest influence, which addresses Project Task Five. The analysis suggests that the business case is the primary driver for the consideration of the social context, followed by project financier requirements, and local participation regulations. Community expectations exert the next highest level of influence. Regulatory requirements can compound community expectations. Context specific influence can include the attainment of a favourable industrial relations regime as well as pressure from social activists.

The examination of these drivers of company practice also indicated that while companies can still get around local jobs commitments, the response that companies make to the social context and the commitments that have been made do not represent corporate whitewash during the project design and approvals phase. As indicated in this chapter, some companies will make commitments to secure leases and approvals while having no intention to meet the commitments, but most companies will make commitments that they intend to do their best to honour. For various reasons within and outside their control, companies may not meet the full quantum of commitments, but the intent will generally still be to strive towards them, rather than blatant disregard. Across developing economies in particular, this chapter has highlighted that the combined economic and regulatory drivers and the pursuit of a social licence to operate are too compelling for companies not to pursue this direction as summarised in Table 15 below.

Table 15 The economic, regulatory and social licence to operate drivers

Elements	Business rationale
Economic	
Lower labour costs	The economic fundamentals in a developing context make local employment first and foremost attractive to the business case. It is, therefore, in the company's best interest to assess the social context to build the skills of locals to access jobs.
Access to a large pool of labour	Developing economies enable access to a large pool of workers, but they will likely require considerable training to be work ready with an initial trade-off in productivity.
Access to finance to grow and investor support	Companies which demonstrate that material ESG risks (such as local participation regulations and broader resource nationalism agendas) are well controlled will be perceived more favourably by financiers and investors.
Regulatory	
Local content and participation	The attainment of employment targets demonstrates compliance with legislative participation requirements.
Taxation incentives	Using local labour may have substantial taxation benefits and enable the company to negotiate tax concessions in exchange for high local content and participation.
Renewal, extension, access to licences and permits	Host governments (as well as governments in potential future project locations) perceive the attainment of local participation targets favourably. Company approaches to addressing local employment may assist with favourable consideration of lease extension requests and securing future leases for expansion.
Social licence to operate	
Good relationships with local communities	Can assist in obtaining community consent for the immediate project and future expansions with community members seeing demonstrable evidence of the equitable distribution of benefits through jobs. Can support companies to build and maintain healthy relationships and trust with host countries through proof of local jobs commitments. Can provide evidence of the likely intent to employ locally in new proposed locations. This approach can provide leverage for expansion into other areas, supported by favourable feedback from host governments. Can support the development of a productive and respectful workforce culture with local employees appreciating the local focus by companies.
Conflict minimisation	Can potentially minimise conflict and project delays with local community members more likely to feel part of the business.
Favourable societal perceptions	Can build a positive rapport with NGOs and social activists who recognise the company's local and regional employment focus (even if they have issues with the resource sector overall).

Up to this point, the analysis of company processes and drivers influencing the consideration of the social context has emphasised regulative and normative internal and external elements and external community cultural-cognitive elements. The analysis has touched on but not explored in detail the internal cultural-cognitive element. The next chapter explores the internal cultural-cognitive element in sufficient detail to enable an assessment to be made of the level of institutionalisation of the social context in jobs decision-making.

7 Institutionalisation of the social context in jobs decision-making

7.1 Introduction

The research in Chapter Three demonstrated that the cultural-cognitive element could drive long-term and incremental organisational change. The chapter identified that this element: the 'want to' (cultural-cognitive) element is more nuanced and subtle than the 'have to' (regulative) and 'ought to' (normative) elements. Culture "is the personality of the organisation" and is "where values reveal themselves through people's behaviours, attitudes and decisions" (Leigh 2013, p. 15). These values[13] can be either positive or negative. This chapter assesses the influence of these internal cultural-cognitive elements on jobs decision-making and then evaluates the consideration of the social context against the phases of institutionalisation under institutional theory. The chapter addresses Project Task Six:

- Project Task Six: Identify the level of institutionalisation of the social context in jobs decision-making.

The chapter starts with an overview from interviewees of ways that cultural values, beliefs, and assumptions across the macro (executive and asset) and micro levels (project team and functions) involved in large-scale projects influence the institutionalisation of the social context in jobs decision-making. The analysis then transitions to evaluate the current phase of institutionalisation (habitualisation, objectification, or sedimentation) using data from this and previous chapters. The assessment builds on the institutional research of Haberberg et al. (2010) presented in Chapter Three, to identify whether the institutionalisation process follows the typical path taken for 'CSR activities' or that of a 'commercially driven business initiative,' given the connection of jobs decision-making to the value chain and competitive context.

[13] [P]ositive values include trust, openness, creativity, honesty, integrity and care. Damaging values might include power, blame, greed and status (Leigh 2013, p. 15).

7.2 Internal cultural-cognitive elements and jobs decision-making

Chapter Six highlighted that different disciplinary subcultures exist over the organisational levels from the project owner, sponsor, project teams, and functional areas, potentially create competing and conflicting priorities and therefore inherent tensions in how companies consider the social context in jobs decision-making (O5). The values of incumbents and challengers across these levels and roles will influence the behaviours, attitudes, and decisions made on projects and the adoption of new practices and the pace of change. In this section, 18 interviewees provided cultural-cognitive insights into how the attitudes and beliefs at the macro and micro level influence how and why companies consider the social context in jobs decision-making.

7.2.1 Macro level: executive CSR leadership

CSR3 acknowledged that "the board sets the tone and values of the company – the behaviour to mirror". PD2 confirmed that how well companies embed the social context into project decision-making reflects a mix of policies, standards, and good leadership, but that "the culture of the business [from the top] is a fundamental driver of behaviours". PD2 acknowledged that even in their role that they needed to manage the constant ethics battle between implementing the overarching corporate social policies and standards (to tick a box) "versus a genuine desire to do what is right for the community".

Some interviewees believed that, in the past, tier-one executives had a high propensity to be arrogant in their approach to the social context, displaying deep suspicion of community motives regarding environmental and social issues (CSR3, F2, GS1, O3, O4, and PD2). However, boards and executives are now showing greater interest in jobs matters and the importance of taking a long-term view in sensitive social areas, including equivalency of pay conditions, beneficiation, preferential treatment of disadvantaged groups (such as women and indigenous people), and the employment of expatriates (CSR3 and PD2). Unfortunately, while most executives recognise the need (i.e., in the sense of the normative element that they 'ought to') to take a longer-term social view, they operate in the previously mentioned short-term paradigm as a result of shareholder expectations, cyclical market conditions, related executive KPIs, and daily social media commentary. CSR2 drew the parallel between chief executive

officers (CEOs) and politicians. “CEOs can be politicians, on the job for a four-year term and [having] no long-term vested interest, with their constituents being owners, investors, employees and peers” (CSR2).

The industry, driven by executive commitments has, however, demonstrated pockets of strong local employment leadership across developed and developing economies, which often go unnoticed by society (CSR2). All executives, project directors, and CSR roles expressed pride in the achievements of the sector, with CSR2 and CSR3 providing the example of the leadership of a mining company in Australia with regard to indigenous employment. In CSR3’s view for executive leadership to give fuller consideration to the social context in jobs decision-making, it “still came back to something having to happen, such as personal experiences, conflicts, and loss of production before the change is made”. CSR3’s position supports the finding from research in Chapter Three that the individual experiences of executives influence their values, beliefs, and perceptions, which in turn can lead to an incremental change in company practice.

7.2.2 Micro level: project leadership team

For projects, there is often a project director and an owner’s representative, possibly the future general manager of the site, who could be in place throughout construction (CSR3). Similar to executives, project directors who have had extensive personal experience with social problems will be more astute and sensitive to the social context in project decision-making and more inclined to seek the involvement of CSR personnel (CSR3, CSR4, CSR6, EXEC1 and PD1). Across tier-one resource companies, many people have lived through the experience of conflict and project social issues and it is important that they tell their story so that businesses and the industry may learn from them (CSR3, EXEC1 and PD1). O4 provided an example from a large-scale developing economy project with a complex structure:

> *The more socially and culturally enlightened were younger and had not been in the business as long. Those who had been there longer tended to be older, incentivised, and culturalised over time. There was also a cultural difference based on heritage; e.g., project managers who had spent much time in*

developing economies and [with] different nationalities tended to be much more enlightened than those from the USA.

Chapter Six highlighted that the design, construction, and operations teams can also have competing project imperatives and differing personal and collective views on social issues (and associated time frames and budgets). The design and construction teams are short-term focused, seeking to finish their work and move to the next project (CSR3 and O4). This emphasis, although not conclusive, indicates a high probability that these roles as the project delivery 'incumbents' can also potentially be the 'challengers' of additional social analysis during the project design and construction phases. Conversely, the operations team are preparing for the longer-term, through operational readiness activities. This team is, therefore, the 'incumbent' for the operational phase and may 'challenge' the design and construction team to place greater emphasis on the longer-term project value objectives. These group and personal values, beliefs, and assumptions of the team can therefore create tension and flow through to impact consideration of the social context within jobs decision-making during the design and approvals phases of the project (CSR3).

EXEC2 believed that, while "engineers do still tend to be engineers and a bit isolated in their disciplines," social, community, environmental, and political awareness is becoming much more broadly understood as key factors in making developments successful. Historically, there was no social awareness as part of an engineer's early disciplinary training, which has impacted on their actual knowledge, values, and views of the importance of social considerations (GS1). GS1 believed that the environment team is more accepted within the project group because project specifications and regulatory frameworks (i.e., the normative and regulative elements) drive its activities on projects, and there is nothing analogous to this in the social disciplines (GS1). Considerable dissonance can, therefore, exist between technical and social roles (especially stakeholder engagement that requires significant time), with engineers taking a hard-line project approach (GS1). CSR4 believed that certain commodities in Australia require a process of sensitisation between operations, projects, and CSR personnel with ongoing tension in how companies consider social issues. CSR4 attributed this situation to operations and project roles working with the same commodity or not having extensive emerging economy experience, and therefore not

having experiences that change their values, perceptions, and beliefs about the importance of the social context.

GS1 led a global sustainability team, which incorporated many social scientists for an EPCM for a period. In this role, it became evident why the social team did not get traction in the sustainability area. GS1 believed, at the time, that the project manager was the key decision-maker and that influencing and educating this role could change the assumptions and resistance to incorporate a greater emphasis on sustainability. The reality, which GS1 came to understand, is that even if the project manager is less resistant, there are still inherent difficulties in the normative and regulative project delivery structures. Often, no space exists in the project process for a more proactive approach to sustainability because the focus is on the maximisation of the portfolio or resource. This experience and time in project roles has led GS1 to believe that project processes are not particularly friendly to environmental and socially-led initiatives, even if individuals, executives, project teams, and functions 'want to' take a different approach.

This section has again highlighted the importance of 'lived experiences' to influence the values, perceptions and beliefs of project roles to place greater importance on the social context in jobs decision-making. The 'ought to' normative element has again been highlighted as a significant driver of practice.

7.2.3 Micro level: CSR and HR functions

O2 and O5 believed that CSR personnel, while well intentioned, and experienced in their field, can be too low in the organisational structure to effectively influence company and project internal practices (in accordance with the findings from Chapter Four). EXEC2 saw the need for an ongoing dialogue between the project and CSR functions, necessitating that they work together to build a shared understanding of the business and social project drivers. EXEC2 believed that, in his/her organisation, CSR is an overall business responsibility. CSR8 had found, however, that even with roles senior enough and well-integrated into the project team, it is hard to influence when short-term profit maximisation logic supersedes longer-term value and sustainability objectives for projects. Some interviewees held the belief that despite talk to the

contrary, “likely by project directors who will tell you what you want to hear” (O4), the community relations team is often still not well understood, received, or perceived within the project environment (CSR4 and O4). O4 considered the reason for this situation is that:

> *The role is firstly perceived as unimportant and easy to do – in other words, how hard can it be? The second reason is that most community relations personnel do not have as much of a commercial understanding and are generally fairly fluffy and struggle to demonstrate the value that it brings.*

O4 considered that many community relations personnel do not help their cause in creating a more positive perception of their capability with the project team:

> *If they are recently from university and a social sciences background, they can see things from an anthropological perspective and consequently most do not have this broader business understanding. What is it we want to do here? We are not an aid agency – how can the gates be kept open; the workforce engaged, and development supported so that you do not have strikes and riots in the camp and village? Community relations roles need to have this broader understanding*.

Another issue that impacts on the perception of CSR roles is that unlike technical areas, social considerations can also appeal to gut feel and be vaguely articulated rather than expressed as hard facts (see Chapter Six), which contributes to the perception by decision-makers that social issues are not important (O2). As highlighted in Chapter Six, CSR personnel and social consultants can, therefore, struggle to influence internal decision-making during the design and approvals phases with their roles often unclear and the perception of their capability by the project team varying, depending on individual relationships (CSR1, CSR6, CSR7 and CSR8). Interviewees acknowledged that without open internal networks and strong collaboration, strengthening the consideration of the social context in the project environment can be challenging (CSR6 and CSR7). CSR3 believed that the entrenched cultural beliefs of technical roles make it difficult for CSR roles to incorporate proactive social analysis or to raise matters that present a different perspective:

Historically resource companies have focused on keeping things running and, therefore, from a CSR perspective, not to raise issues – an attitude which can put pressure on CSR professionals and which is even more prominent in the project environment.

CSR personnel and social consultants also have their own perceptions about the capability of people to inform the social context based on their disciplinary background. Some people come into CSR roles from engineering or communications (not always an issue since they evolve in their careers) and, therefore, do not have the social sciences methodological understanding (CSR4 and CSR5). Others perceive that CSR staff who come from a communications background, while strong in the language of the business, often do not understand the social context and/or may be more focused on corporate spin-doctoring (CSR2, CSR4, SC1, SC2 and SC3). SC2 believed that personnel with communications or external affairs backgrounds could also be more competitive and aggressive internally in their approach. Social consultants and CSR roles identified the potential for significant internal tensions at times between personnel from a social performance versus personnel from a communications background. People in community roles with broader experience and leadership over different operating and project lifecycle contexts can have the business understanding and be better received by the project team (O4). CSR7 identified a major global cultural change in the perception of CSR roles over the last decade, from the function originally not being taken seriously (in his/her opinion) to now being perceived no differently from any other HSEC role.

CSR personnel interviewed believed that the ability of CSR roles to engage and influence community and social practices at the project level varies considerably. Generally, it was much easier to exercise influence in emerging economies where the company and project team recognised the external drivers and need for strong engagement, community relationships, and that development outcomes were necessary (CSR4 and CSR6).

EXEC1 believed that while formal procedures and organisational design are important, people and relationships are key to embedding the social context in project processes.

EXEC1 had witnessed significant tensions between process and leadership within the project environment where process had overtaken pragmatism:

> *There are tensions between project teams and functions at times between the output of mining, the process, and infrastructure and the responsibility of functions for their support and delivery – but output teams cannot do their role without the functions. Functions are, however, in my view, growing in their ascendancy, and this can create many tensions between operations, roles and projects and functions – seeing functions come in with a procedural stick*.

7.2.4 Cultural-cognitive influences

While executives might recognise the need to take a longer-term social view, this section indicates that macro cultural values, beliefs, and assumptions at this level likely emphasise short-term market expectations. Chapter Six provided an overview of the influence of KPIs and executive incentives on project decision-making. An observation is that the combination of short-termism (a normative isomorphic pressure) and defined KPIs in performance plans with the potential for lucrative incentives (a combination of regulative and normative elements) can reinforce values that emphasise power, blame, greed, and status. The influence of the cultural-cognitive element of executives on driving assets and projects to give fuller consideration to the social context in jobs decision-making and taking a longer-term view is, therefore, likely weaker than a short-term emphasis.

Prior experiences of executives and the project team will, however, influence the extent that the project seeks social analysis to support a longer-term view. The analysis indicates the high probability of considerable contention and contestation in and between functions, teams, disciplines, the asset, and the project team about the importance, amount required, and relevance of social analysis to inform jobs decision-making during the project design and approvals phases. This finding highlights that if individual companies and the industry as-a-whole wants to change its approach to how the social context is currently considered in jobs decision-making that company values and objectives require devolving across the project governance structure. Aligned objectives, social specifications and tollgating protocols can drive common practice across the business in this regard.

7.3 The current phase of institutionalisation of the social context

The first part of this chapter provided insights into how internal culture influences the embedding of the social context in jobs decision-making. This section assesses the current phase of the institutionalisation of the social context in jobs decision-making, drawing together the analysis of interviewee responses in this chapter with findings in Chapter Six and the literature.

Feedback from the interviews indicates that experience and practice across companies are relatively homogenous. Companies have a growing awareness of the need to give greater consideration to the social context in jobs decision-making that is linked to social risks associated with organisational reputation, the social licence to operate, and navigating government approvals and the social conditions unique to the project location. Companies with more experience in designing and delivering projects in conflict-prone and fragile developing states will be more attuned to this requirement. Businesses can, however, be unsure how to proceed in practice within a project environment. Chapter Six highlighted that jobs decision-making is still mostly a technical process which involves the development of a workforce profile and structures; determination of employee accommodation, site infrastructure and travel access; and health and safety, skills and training programs.

Chapter Six also identified that the regulatory environment has high coercive influence during the project approvals phase which can see some companies rush to make ambitious commitments to local employment targets in order to secure support from government and stakeholders. Prescriptive local content and participation regulations are developing rapidly internationally in response to community and political expectations. The feedback from interviewees confirmed the findings of research that the more companies encounter strong state regulation and resource nationalism pressures, the more likely it is that they will act in socially responsible ways. Project financiers also expect businesses to consider the social context to the extent necessary to safeguard business reputation, address risks, and deliver the project on schedule with requirements hardwired into funding agreements.

The normative environment, while also having a strong influence on business practice, overall exerts medium normative and mimetic isomorphic pressure on firms to consider the social context in jobs decision-making. Chapter Six and this chapter have highlighted examples of current areas of stronger normative pressure. Internal and external project peer review structures provide a regulative element but also reinforce the normative element by assisting in providing accountability. Community expectations of access to jobs are high. The public proclamations and practices of other companies and commitments in areas such as indigenous employment and gender equality exert mimetic pressure on other businesses.

Examples also exist of weaker normative pressures. Project standards (which provide regulative and normative pressure) are difficult to implement in practice for projects with a lack of alignment in CSR practices over organisational levels. In Chapter Two, it was noted that the IFC Performance Standards and the Equator Principles also make scant mention of the assessment of benefits compared to the mitigation of unwanted social impacts. Chapter Three highlighted that the ICMM and IPIECA provide limited practical guidance on the consideration of the social context in jobs decision-making.

The internal cultural-cognitive aspects of the levels, functions, and roles involved in project decision-making, as elaborated in this chapter, currently exert low to medium pressure on companies to consider the social context during the project design and approvals phase. Instead, companies at the project level mostly only consider local content and participation during these phases to the extent that they support the business case and help to secure a social licence to operate and gain government approvals.

The isomorphic pressures associated with the regulative environment and government and community expectations are leading to different companies, over varying project contexts, converging in their approach to jobs decision-making and the consideration of the social context. By contrast, the isomorphic pressures from the internal cultural-cognitive aspects (presented at the start of this chapter) are lagging behind. Companies know social risks and issues require more consideration but are often

unsure how to effect it in the face of competing priorities, values, beliefs, and assumptions, all of which contributes to tensions in and between project levels.

Interviewees identified that companies are improving how they consider the social context earlier in project decision-making, driven largely by external regulative requirements and normative expectations. At a superficial level, the consideration of the social context, therefore, appears to be at the 'sedimentation' stage, in which companies across the field universally recognise the importance of considering the social context in jobs decision-making. However, a deeper analysis of the formal and informal jobs decision-making processes and the drivers for those decisions presents a different picture.

In reality, the local social context during the project design and approvals phase is considered by companies only to the extent they deem it necessary to ensure the project's business case and the timely attainment of approvals by government and financiers. Considerations can include a desire to appease community expectations, to address regulatory requirements, and to demonstrate to project financiers that risks are well controlled. In developing economies or developed indigenous communities, companies can often have an altruistic component; for example, a genuine desire to see the project provide opportunities to support people out of poverty. But this wish will rarely override the business imperatives. Companies are recognising the economic and instrumental benefits of considering social risks, issues, and opportunities in jobs decision-making earlier (e.g., productivity, the impact of different cultures on the workforce, and attitudes to work and safety) but these risks, impacts, and benefits are more qualitative at this stage. In certain pockets of jobs decision-making, consideration of the social context is more universal. Indigenous employment is an example, in that the industry is taking more time to understand the local social context as part of its jobs decision-making, driven primarily by both regulatory and normative imperatives.

7.4 Assessment of CSR adoption in company jobs decision-making

Haberberg's (2010) research referenced in Chapter Three indicates that the adoption of CSR often operates in reverse to other business practices; initially driven by exogenous pressures, it is less linked to instrumental benefits and primarily focused

on community good. This research indicates that when companies adopt CSR in an area directly related to the value chain, it is the combination of endogenous and exogenous pressures from the outset which influences the adoption of CSR. For jobs decision-making and consideration of the social context, commercial pressures exert the greatest influence from the outset. This finding provides new insights into the institutionalisation of CSR. Exogenous pressures dictate the extent to which companies consider and commit to understanding the social context in jobs decision-making. However, securing instrumental benefits and ensuring that any external commitments do not compromise the business case are the overriding objectives from the beginning.

Consistent with the analysis by Haberberg and the institutionalisation of CSR, on the cusp between habitualisation and objectification, there can be a “struggle for the soul of the practice” (2010, p. 370). The consideration of the social context in jobs decision-making is at this stage. Executives recognise the importance of fuller consideration of the social context, but jobs decision-making is currently primarily a technical decision. In large-scale projects in tier-one companies with complex delivery structures, teams appear to try largely and keep it this way with CSR roles often having trouble in exerting influence.

7.5 Conclusion: future CSR sedimentation

This chapter has provided high-level insights into interviewee experiences on how cultural values, beliefs, and perceptions at the executive, project, and functional levels influence the consideration of the social context. A detailed assessment of culture was outside the scope of the study, but it is evident from the analysis that the intersection of organisational and project culture and how resource companies consider the social context is a topic worthy of comprehensive research.

The present chapter also analysed how companies consider the social context against Haberberg’s (2010) three phases of institutionalisation, concluding that jobs decision-making is currently on the cusp between habitualisation and objectification. This finding addresses Project Task Six.

The analysis of the institutionalisation of CSR and the drivers that influence jobs decisions across Chapter Six and this chapter provide valuable markers of future trends and implications for project practice. The data indicates the strategic relevance of attaining CSR objectification and industry-wide sedimentation. Table 16 summarises these implications using the six ideal CSR concepts as espoused by Crane and Matten (2008) in Chapter Two.

Table 16 CSR ideal concepts and implications for practice

Ideal CSR concepts	Industry-wide assessment	Comments
Largely voluntary	No (increasingly binding for some CSR jobs elements during construction and early-to-mid operations)	Demonstrated through the ratcheting up of prescriptive local content and participation regulations, the ratification of indigenous employment targets through agreements and project approvals conditions. An essential pre-condition is appropriate government and project financier governance mechanisms to monitor compliance, which is mostly likely to occur: in developed economies; where development agencies are working closely with developing economy host governments to address governance issues; and in developing economies where projects receive DFI support.
Focuses on internalising and/or managing externalities of the goods or services made	Variable	The sector requires additional information on the connection of the external social context to jobs decision-making to enable the better identification and management of externalities.
Representative of the main multi-stakeholder needs and views	Variable	Companies and project decision-makers recognise that local people want jobs and that expectations require careful management. Regulation and financier requirements (e.g., IFC Performance Standards) mostly influence the level of stakeholder engagement undertaken to demonstrate that stakeholder needs and views inform company decisions. Internal company standards will also influence engagement but to a much lesser degree. Companies may also experience conflict with the productivity and cost expectations of project financiers and investors who are other key stakeholders.
Aligns social, environmental and economic responsibilities	Variable	Internal standards and company approaches demonstrate intent, but implementation can be variable in a project environment. Economic drivers typically overrule social considerations as dictated by investor expectations. The business case for fuller consideration of the social context is not entirely understood or articulated other than contributing to a lower cost of labour and keeping the neighbours and government happy.
Embedded in both practice and values	Variable	CSR is aspirationally embedded in values but variably applied in practice due to the issues inherent in the project governance structure.
Focused on operational considerations beyond philanthropy	Strong	Consideration of the social context in jobs decision-making focuses on optimising the business case, minimising the cost of labour and meeting regulatory requirements.

The implications for practice across all settings (developed and developing countries), as evidenced by the literature and responses from interviewees, is that the CSR component of jobs decision-making and how companies consider the social context will become increasingly involuntary and binding. This study (up until this point) presents sufficient project examples and responses from interviewees to demonstrate the requirement for convergence in CSR project approaches, with the extent a matter of degree, based on individual project and social variables and risks. Companies should, therefore, give more strategic and voluntary consideration to all of the CSR components as described by Matten and Spence (2008). This approach would serve two primary purposes. The first is to manage and minimise the risk of inappropriate government conditioning during the project design and approvals phases. The second is to contribute towards CSR across the range of concepts continuing to remain largely voluntary and, therefore, non-binding, which provides companies with greater project flexibility. Notwithstanding political, corruption and governance issues specific to the location, corporations have likely brought the situation of prescriptive conditions on themselves through industry-wide deficiencies in the approach taken to the consideration of project benefits and the embedding of CSR and the social context in jobs decision-making.

A strong case for the sedimentation of CSR in jobs decision-making, therefore, appears to exist based on the observations and experiences drawn from current project practice. The analysis of the cultural-cognitive aspects at the beginning of this chapter, however, confirms the conclusion drawn by Haberberg (2010) that sedimentation has the most likelihood of being reached when social issues and opportunities are better defined and aligned with internal economic imperatives. Following the attainment of this knowledge (in Chapter Eight, the next chapter), the question then becomes, ‘how’ to do this in practice (as covered in detail in the concluding chapter).

8 Social consequences of jobs decision-making

8.1 Introduction

Previous chapters have identified that project decision-makers require information agility in order to anticipate and respond to project location and stakeholder complexities in a way that connects data, events, feedback, and expectations to strategic project value. This chapter seeks to improve the quality of decision-making by providing an understanding of the potential social consequences of jobs decision-making connected to the project business case. In the chapter, interviewee responses, which provide practitioner insights, are combined with credible peer-reviewed literature, to address Project Task Seven:

- Project Task Seven: Highlight positive and negative intended and unintended social consequences of jobs decisions and the role of the SIA in drawing out these impacts.

The chapter starts by outlining five interconnected social themes connected to jobs decision-making before providing a summary of the opportunities presented to communities from access to employment. The chapter then presents a range of illustrative examples from around the globe of intended and unintended social consequences of jobs decision-making connected to these themes. Feedback from interviewees provides insights on the role of the SIA as a planning tool to draw out these social impacts to inform jobs decision-making. Implications for practice at the end of the chapter provide guidance for companies on how to improve the management of the social aspects of jobs without compromising business imperatives.

8.2 Jobs and the connection to the social context

The review of the literature identified five overarching themes which connect jobs decision-making to the social context. The first theme concerns ‘business factors’ that relate to the choices made by companies about workforce roles, conditions, and infrastructure to access the site and accommodate workers. The second deals with the ‘communities of interest’ and involves the definition and identification of who is

eligible for local jobs commitments. ‘Socio-economic considerations’ are the third theme and focus on how workforce decisions can impact on the community and, conversely, how the social context can impact on the project workforce. The fourth theme of ‘service delivery enabler’ has two features – access to government services and infrastructure to support the upskilling of the labour force and the development of community facilities and services to attract and retain a workforce. The final theme is ‘broad-based development’ which connects jobs opportunities to broader development agendas involved in the project. This chapter provides a detailed assessment of these interconnected themes and sub-themes (presented in Figure 6 below).

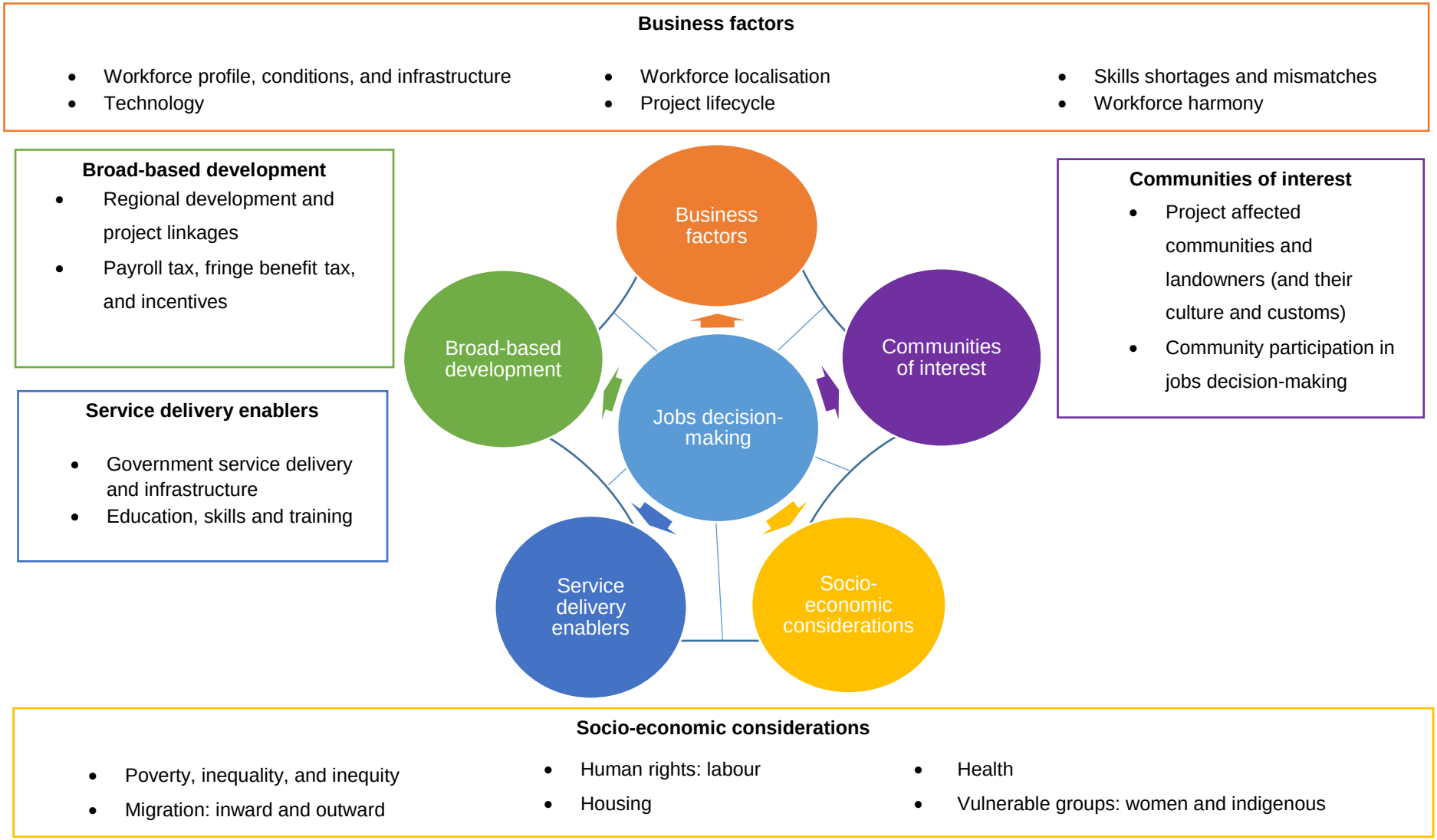
8.1 Opportunities and impacts presented by access to jobs

Policy makers and academics across all types of regions, industry settings, and contexts acknowledge that the key determinant of economic growth for local communities, regions, and nations is human capital (Blanco and Grier 2012, p. 284; OECD 2012, p. 1). For an organisation or country, educational attainment is the typical measure of human capital (whether viewed from a value or cost perspective) (Florida, Mellander and Stolarick 2008).

> *For all types of regions, human capital appears to be critical, though its relative importance varies according to the level of development. Overall, reducing the proportion of people in a region with very low skills seems to matter more than increasing the share with very high skills. (OECD 2012, p. 1)*

Economic empowerment through access to jobs can, therefore, be the biggest intended positive social impact of large-scale resource projects for local communities. The findings presented in Chapters Two and Six indicated that local communities generally value access to jobs more than other benefits. While at the regional and national scales, the resource sector is not a large employer compared with other fields, it can be the most significant employer in remote locations and purpose-built resource communities.

Figure 6 Jobs and the connection to thematic social contexts



Access to jobs in developing economies can assist local communities to transition out of poverty, provide positive benefits through improvements to social and health infrastructure, education, training and skills development. In these contexts, company local participation programs can leave enduring benefits for communities, the region, and nation, well beyond the project lifecycle, with trickle-down effects created throughout the economy. These advantages have more chance of being realised when national governance, institutions, and public policy processes align (ICMM 2011b).

Unintended negative social impacts for communities connected to company jobs decisions can, however, lessen the positive impact of projects (Esteves, Franks and Vanclay 2012; Franks, Brereton and Moran 2010, 2013; Franks et al. 2010; Lockie et al. 2009; Petkova et al. 2009; Petrova and Marinova 2013; Rolfe et al. 2007; Vanclay et al. 2015). These impacts can often be outside the control of the company and linked to broader social change. Such impacts can vary in intensity as well as in spatial and temporal extent.

Social consequences of jobs decision-making can be positive or negative and characterised as direct, indirect, induced, and/or cumulative. Direct impacts are those that relate specifically to project activities. Direct employment with the project is a positive example and a negative example is a lack of transparency in the definition of employment eligibility criteria for ‘true locals’ which creates extended community conflict. An indirect impact is secondary to the main project activity but flows from it. A positive indirect impact example is the creation of additional jobs with local suppliers as a result of company contracts with local businesses with a negative being considerable disparity in contractor conditions compared to employees, which creates community conflict and workforce harmony issues. Induced impacts are those stimulated by the project that are not essential to or within the scope of the project activity. More jobs with local businesses due to the demand for goods and services from project workers is a positive induced impact, while a negative induced impact is the potential for induced migration with people shifting to nearby communities in search of work with the project.

Where there are multiple projects nearby, these effects can be cumulative, reflecting the “successive, incremental, and combined impacts” (Franks et al. 2010, p. 1) of resource projects or the interaction with other industry sectors (Department of Industry Innovation and

Science 2015)[14]. An example of a cumulative positive impact is the creation of new jobs in a town or region to service a growing industry, the corresponding negative impact being the excessive workforce drain on other industry sectors due to workers moving to work with resource projects. A lack of understanding of the intersection between the social context, project design, jobs decision-making, and scope changes can lead to potentially significant adverse direct, indirect, induced, and cumulative impacts for communities, as well as the project cost and schedule.

For communities, often it is the fear of the unknown and perceptions about the potential negative social impacts and speculative behaviour about positive opportunities that requires close monitoring and management during the project design, approvals and construction phases. Storey and Hamilton (2003) assessed the social impacts of the introduction of a large-scale oil project in Newfoundland, Northern America. The construction phase required a peak workforce of 3,600, which was triple the size of the closest and largest local community. At the time, community members were excited about the opportunities presented by the project, but also concerned about potential negative project impacts (e.g., population influx, inflationary pressures on housing, constraints on services and infrastructure, an increase in crime and alcohol and drug abuse). Storey and Hamilton (2003) assessed, however, that very few of these impacts materialised for the host area. The researchers found that a combination of the company's proactive management of impacts as well as residents having a favourable attitude to development from previous projects and trust in political governance structures contributed substantially to this outcome (p. 293). The approach taken to generate local employment and mitigate against industrial relations disputes was also a major contributor. During operations, the project now employs 800 people, with 88 percent being Newfoundland residents, and 35 percent of this amount working in offshore and onshore roles employed from the nearby local community. The example highlights the importance of the proactive identification and management of potential negative social impacts from the outset. The jobs strategy implemented by the company was found to be central to the management of impacts and community perceptions.

[14] The University of Queensland (2015) UQ Boomtown Toolkit contains a wide range of planning resources to assist companies, communities, and governments to assess and manage the impacts of rapid growth and change for local and regional communities. Employment and access to jobs is a key indicator.

While each local community will experience project impacts and opportunities differently, the literature and feedback from interviewees up until this point indicates general commonalities when projects are pursued in developed, indigenous remote developed, developing or developing conflict-prone locations. The project variables, the underlying social fabric, prior community experience with large-scale projects and the embedded political governance structures in the location will, however, play a major part in determining the uniqueness, variability, scope and extent of positive and negative community impacts. An understanding of the potential range of social issues that can ensue from company jobs approaches, as well as affect the ability of locals to obtain work, can assist companies to navigate the social complexities inherent in jobs decision-making.

The analysis below maps the broad range of potential intended and unintended consequences drawn from experiences in developing and developed economies. The extent to which the sub-themes are relevant to individual projects and result in an impact will be specific to the local social, cultural, political, and temporal landscape as well as the project context.

8.2 Business factors

Jobs decision-making involves choices by companies not only about workforce roles and conditions but also the infrastructure needed to access the site and accommodate workers. The choices made form an important part of the project business case. These elements intersect, reflect, and are shaped by the local social context, and thereby have the potential to create, or exacerbate, issues, and opportunities. The responses from interviewees indicated that some companies might not connect these technical decisions about jobs to a social impact within their normative jobs decision-making processes and project tollgates. This section examines the business factors which intersect with the social context, as summarised in Figure 7.

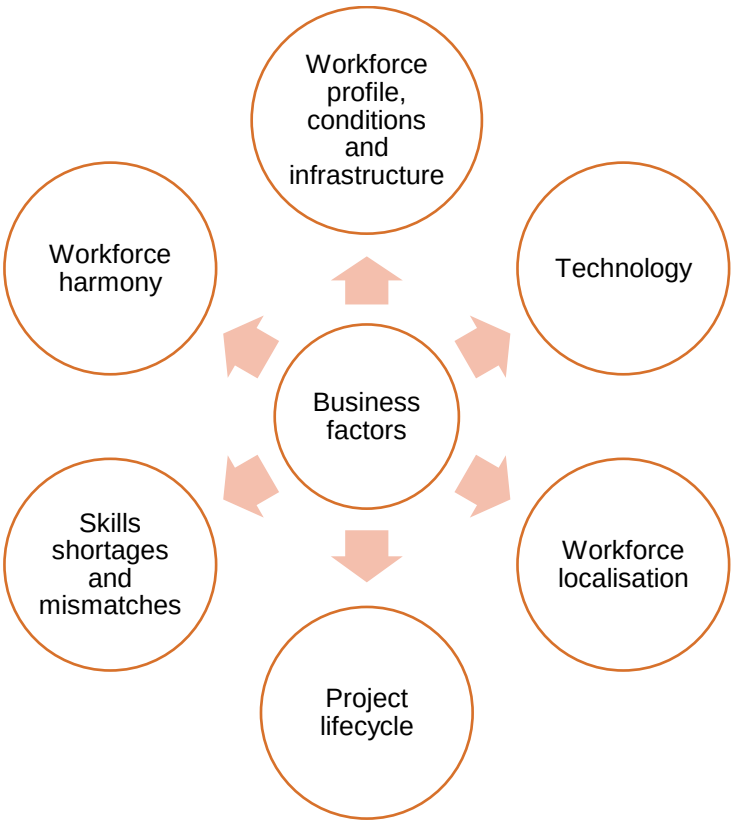


Figure 7 Business factors that intersect with the social context

8.2.1 Workforce profile, employment conditions, and infrastructure

Company jobs practices and subcontractor arrangements can influence the level of negative or positive social impact of the project on local and regional communities. Chapters Four and Six highlighted that some resource companies are increasingly turning to long-distance commuting arrangements to service the needs of operations connected to cost, access to skills, productivity, and workforce harmony. Interviewees noted that the situation during the project design and approvals phase and the project location would determine the pursuit or otherwise of non-resident workforce options.

There is a small but growing body of research focused on the socio-economic impacts of non-resident workforce structures on host communities and regions in a developed economy context (Carrington, Hogg and McIntosh 2011; Carrington and Pereira 2011; Lockie et al. 2009; McKenzie 2010; Petkova et al. 2009). If new projects are near local and regional communities or the camps are in towns, long-distance workers can dwarf the size of local populations, leading to the potential for conflict between resident and non-resident communities (Petrova and Marinova 2013). Research has confirmed that depending on the structure, these workforces can be associated with the uneven distribution of the benefits

and burdens of the mining boom, with limited regional development and localised opportunities (McKenzie 2010).

Resource community members in developed economies consistently raise concerns about the impact on the economic viability and quality of life of the community due to high non-resident workforce populations. Complaints include that the non-resident workforce works long hours and "[does] not develop a sense of place and [has] a limited sense of connection to the mining community" (McKenzie 2010, p. 362). Safety concerns are another area where residents fear an increase in crime, irrespective of whether there is an observed statistically significant difference (Scott 2013). The change from a resident workforce to non-resident workforce arrangements for existing communities is especially significant for small populations and rural communities (McKenzie 2010, p. 358).

Where the camp integrates with the community, non-residential workforce models can, however, in some instances make a positive contribution to communities through local purchasing by workers and accommodation villages (McKenzie 2010). An issue that impacts on the arrangement being considered more positively in an Australian context is that government planning (i.e., census) data may not count these workers as residents of the host mining community. This situation then flows through to affect the allocation of funds and resources to locations with high non-resident populations (McKenzie 2010).

These arrangements can also be positive for boosting indigenous workforce numbers from regional centres to meet indigenous jobs commitments and obligations under formal agreements. The structure is commonly used for remote developing economy projects and is gaining prominence in developed economy contexts. Haslam McKenzie and Hoath (2016), in a study of the Geraldton and Midwest regions of Western Australia, found that the implementation of direct commuter transportation by Rio Tinto to these regional centres improved Aboriginal participation in the workforce. The case study highlighted the many planning considerations for companies seeking to boost indigenous employment numbers through this arrangement. For example, most indigenous people who secured work with the company had accumulated significant prior work experience. This finding emphasises the importance of aligned approaches between external Aboriginal training and recruitment providers and internal approaches to building the employability of indigenous community members, and to gain the necessary job-ready prerequisites such as a driver's licence.

Mentors can also play a critical role in assisting indigenous workers, their families and support networks to adjust to the expectations and requirements of employment and long distance commuting. These support systems can substantially improve workforce retention and satisfaction rates amongst indigenous employees (Haslam McKenzie and Hoath 2016). Another potential benefit of long-distance commuting arrangements for remote indigenous communities is that the model can reduce the likelihood of an increase in non-indigenous populations to these communities in search of work with the project. This situation can enable these communities to continue to live in ways consistent with their traditional and cultural values (O'Faircheallaigh 1995).

Companies are also accessing greater levels of contracting services to either shed core labour or to expand production, which could provide jobs for locals under different conditions from direct employment. In developing economies in particular, subcontracting arrangements can be associated with low pay, poor working conditions, and limited labour rights within local communities (Utting 2005b). An analysis by Van Alstine and Afionis (2013) over six Zambia Copperbelt communities relating to the Kansanshi project, indicated that wage parity between the local permanent and contract workforce was a significant issue for locals. Community members identified that when locals secured work with the contractors, their wages were lower (Van Alstine and Afionis 2013, p. 367). The World Bank study on labour and productivity in Zambia, first referred to in Chapter Four, also identified this as an issue:

> *Unlike their more fortunate counterparts that are employed by the mines, miners working for contractors supplying services to the mines do not receive housing or vocational allowances or social services provided by the mines and are not eligible for the same level of retrenchment benefits. They are also likely to receive a lower basic rate of pay. (World Bank 2011, p. 57)*

Domestic nepotism and discrimination in jobs hiring practices can impact on locals obtaining work, which also reinforces distorted power relationships and inequality. Local hire companies, created by local elites and landowner clans, are often used to recruit contractor and unskilled labour (Bebbington and Bebbington 2010). In the case of the Kansanshi project, recruitment personnel favoured hiring from their place of abode, creating a hurdle for other local communities to obtain jobs (Van Alstine and Afionis 2013). Employment was the local community's biggest concern due to the perception of bribery and favouritism in

hiring practices. The project demonstrated a significant link between the issue of nepotism, lack of community trust of the mining operation and the resultant incidence of conflict. CSR1 had experienced a similar situation for a project in Sub-Saharan Africa where a particular clan got all of the jobs, reinforced through the use of local hire company elites hiring from their clan. The characteristics and expectations of the local workforce amidst which the project is situated also shape how companies can employ and retain staff.

8.2.2 Technology

A strong correlation exists between the cost of labour and the integration of advanced technology into projects. In developed economies, the high cost of labour can catalyse an emphasis on technology. In developing economies, in contrast, access to cheaper labour can result in less focus on technology compounded by sensitivities associated with high unemployment, community expectations, and local participation regulations. Chapters Four and Six provided a detailed overview of technology considerations for business and the potential impact on unskilled workforces. Developed economy workers are typically unskilled and therefore potentially most affected by technology decisions. The practical issue is that the impact of technology and potential displacement over the first five to ten years of operations can be largely unknown at the time of seeking project approvals, making it impractical to assess the social implications over time.

Advanced technology, whether through mechanisation or automation, can be an attractive proposition for the project and nation but potentially in conflict with local expectations (O2). The issue and challenge is to understand what local communities and government are seeking – more people trained to a lower level or fewer higher skilled roles (O5)? O5 had found that local communities mostly prefer the opportunity to get a job (i.e., more jobs) but that companies can also think that the community prefers higher skilled roles (i.e., fewer jobs). The implementation of new technologies by enterprises determines the number of positions available, the skills and qualifications required and informs the formation of knowledge transfer negotiation strategies with the government during the regulatory approval phase.

8.2.3 Workforce localisation

The impetus for workforce localisation (from the immediate communities to the national level depending on the regulatory drivers) can come internally from company objectives and

externally from regulators or local communities. Chapter Six highlighted that local jobs policies can be one principal mechanism to support the attainment of a social licence to operate but that it is important that targets be pragmatic to avoid unrealistic community expectations. Even in developed economies, a disconnect can exist between setting large local targets and what can actually be achieved (CSR3). “In Australia during the design phase of a project, there was a decision to target 50 percent local employment. What we found is that many people wanted to be non-resident resulting in 25 percent employed locally” (CSR3).

In the assessment of ways to optimise jobs, companies should not assume that a higher level of local content is always positive (Esteves and Barclay 2011). The extent to which local communities will benefit depends on their capacity to take up the roles, the degree to which opportunities align with community values, the ability of the community to adapt to project lifecycle changes as well as how the project co-exists with other industries (Esteves and Barclay 2011).

The industrial relations action at Ok Tedi Mining Limited in PNG in the 1990s and the overlap with the community demonstrated the workforce and community angst that can result from local jobs targets being optimistic and unachievable however well intentioned (Imbun 2009). In this case, the company had set high local participation goals, but state modelling had identified the potential for negative impacts on local communities due to local hiring practices. Concerns existed in government that the excess demand for the country’s small skilled labour pool at the time would push up wages and exacerbate national wage pressures, and therefore would have a detrimental impact on wage policy. The government supported the policy of the importation of an expatriate workforce (which was not the expectation of the community) to mitigate the issue, which contributed to considerable local community unrest. O2 had witnessed a similar situation of differing local participation views between the local community and government that had led to considerable conflict and disputes for the project. Locals wanted locals whereas the country supported importing workers from other nearby nations to address inflationary concerns.

Local participation policies can be structured to target supply chain linkages which can be a strategic way to provide local jobs and manage risks and expectations across the project lifecycle. An example of this situation is the Yanacocha local procurement policy in northern

Peru. Localisation programs targeted labour-intensive services in Cajarmaca, the nearby city that supports the mine and the workforce thus assisting in addressing the enclave effects of operations through creating and strengthening linkages and job creation (Aragón and Rud 2013, p. 6). The economic analysis of this project by Moretti (2010), as cited by Aragón and Rud (2013), demonstrates that the proactive local content and participation policy implemented by the company initially contributed to an increase in nominal local wages and prices of local goods and services, due to the high demand for local workers. Winners included local employees provided with company housing, homeowners, and local producers, with losers being those working in the industry, such as contractors renting their homes without a company rental subsidy or businesses that did not supply services to the operation. These demand shocks, however, balanced out over the medium and longer term and the mine was found to have made a positive net economic impact (Aragón and Rud 2013).

Some interviewees recommended that companies focus on employability, an approach consistent with shared value, by providing training useful to local communities in the longer term, setting them up for post-mining employment (CSR1 and CSR4). An example of a mining project that placed significant emphasis on vocational training is the Ambatovy project of Sherrit Mining in Madagascar. The project connected to the broader induced demand from workers for goods and services from the outset by training thousands of locals in not only mining but other vocational areas (Done and Ashcroft 2012). Indigenous remote communities in Australia can also often prefer work outside of the resource project as highlighted by interviewees. Supporting Aboriginal people to build human and social capital for the local service sector (e.g., tourism, building and construction, maintenance and natural resource management) can potentially contribute toward a more resilient longer-term development model (Buultjens et al. 2010). These different examples demonstrate that a variety of ideological viewpoints determine government and company workforce localisation policies which, in turn, shape project jobs decision-making.

8.2.4 Project lifecycle

Access to workers and employment over the project lifecycle (as defined in Chapter Four) can provide opportunities and cause tensions and strain for local communities and corporations. Companies are being required to give greater consideration to the project lifecycle during the development of the EIS, including preparation of a closure plan. The

cyclical nature of the industry as well as the different requirements that arise at each stage of the project lifecycle presents challenges for companies regarding local jobs, community expectations, and socio-economic impacts. As discussed in Chapter Six, interviewees highlighted that businesses must balance the provision of employment with not over-committing during the exploration phase, given that very few projects proceed to operations.

Communities without a previous connection to the resource sector are often a relatively closed ecosystem with the construction phase potentially having a massive impact on the social fabric in both developed and developing economy contexts (HR2 and O4). Companies often bring in a large external workforce and use local employees to access enough workers. This phase can put significant inflationary pressure on local communities.

> *The sustainable development impacts can be huge when someone comes into town paying wages more than double the average wage. In local communities people often already get much less than the average wage. (HR2)*

When companies move from the construction phase, this can result in jobs losses, with the project scaling down to an operational workforce (EXEC2 and HR1).

Many companies in developing economies start with a higher expatriate contingent during construction and initial operations and transition to a localisation strategy in stable operations (CSR1). The public rationale is to meet localisation commitments, but more often the underlying reason is to minimise workforce costs (CSR1). Companies will often start to build longer-term skills for operations during construction. Research by Wilson and Kuszewski (2011) highlights that the higher use of external workforces during construction can be a good way of minimising social issues related to a large transient workforce. HR2 believed that when the industry is undertaking many large-scale projects nearby, there were opportunities for EPCMs to use more locals during the construction phase, sharing labour resources between the various projects. Whichever approach companies pursue; it is important to undertake early up-front engagement with communities and government to ensure that the rationale for workforce decisions is understood (CSR4 and SC1).

In boom times, high demand for labour can result in local communities and a region experiencing rapid employment growth (Deller and Schreiber 2012; Marchand 2012). A longitudinal study of the Coppabella coal mine in the Bowen Basin, Queensland by Lockie

et al. (2009) concluded that mining during booms creates high demand for labour and shortages of skilled labour in other industry sectors. Petkova et al. (2009) also undertook a study on the Bowen Basin, interviewing local businesses across six mining communities. This study identified that the inability to attract and retain staff in service and support industries during the boom severely constrained the ability to grow these sectors. Demand for local labour can, however, have spillovers to build jobs in other industry sectors under the right conditions. A study by Marchand (2012) of Canadian oil and gas communities assessed that during the boom periods of 1971-1981 and 1996-2006, ten direct jobs with the sector created three construction, two retail and 4.5 service sector indirect jobs (p. 165). In developing subsistence economies, the demand for labour by resource projects can absorb workers from the agricultural sector and the public service (e.g., teachers), with the loss of farmers having the potential to exacerbate food insecurity pressures (Andrew 2003; Gwebu 2012; Hilson and Banchirigah 2009; Perks 2012).

Small resource-dependent regions can be vulnerable to economic shocks (such as downturns) as a result of the mining lifecycle, cyclical commodity prices, and a lack of diversification (Pegg 2006b). Sudden and unexpected closure can have the most devastating impact on local employment, with communities suffering a significant socio-economic decline (Nyame, Andrew and Yakovleva 2009). A study of the implications of the boom and bust cycle on remote, coal-producing Appalachian regions in the United States by Black, McKinnish and Sanders (2005) concluded that boom times resulted in every ten direct jobs creating two indirect jobs. During the coal bust, however, the researchers estimated that the negative economic spillover was far greater, with the loss of ten direct jobs, removing 3.5 indirect jobs from the construction, retail, and services sectors (p. 473). Langton and Mazel (2008) found that remote indigenous communities in developed economies can be particularly vulnerable to closure as a result of the dependency established through the reliance on revenue streams during operations that evaporate on closure.

McKenzie (2010) provides the example of the unexpected closure of a nickel mine and its impact on the fence-line communities of Ravensthorpe and Hopetoun in Western Australia. During the global financial crisis in 2008 and 2009 and the resultant decrease in commodity prices, BHP Billiton closed its Ravensthorpe nickel mine after nine months of operation. The mine originally had a 25-year forecast life. It was a mixed-residential model where the

company and government had expended significant funds to build residential accommodation and new social, education, and health infrastructure. The closure of the mine affected 1,800 employees and contractors and their families with flow-on effects to small business operators and support functions.

In short, managing the demand for employment across the project lifecycle presents challenges for companies which manifest as issues and opportunities for local communities. However, combined strategies between governments and corporations to strengthen regional centres, potentially as hubs for resource sector FIFO workers can provide a reasonable proactive mitigation measure against negative project lifecycle impacts (McKenzie 2010; Pick, Dayaram and Butler 2008). This approach enables the benefits provided by regional agglomeration to be capitalised upon while also mitigating the direct impacts of downturns on the host resource community and smaller regional centre. There is also an opportunity to draw workforces from other larger regional centres that do not have a diversified industry base to strengthen the sector base. The time to start to strategically consider these potential impacts is from the project design and approvals phase; this may also assist companies to engage with governments to negotiate local participation commitments that reflect commercial, operating, and community reality.

8.2.5 Skills shortages and mismatches

Skills shortages, as well as mismatches in the knowledge, experience, and cultural and attitude attributes required to undertake workforce roles, can impact on the ability of local communities to get work with projects. At the same time, skills shortages and mismatches impact on the capacity of companies to source enough local workers to meet regulatory commitments and community expectations.

Chapter Four highlighted skills shortages and the elevation of this issue to the board level. The shortage of – and increased demand for – skilled labour have become more prevalent in developed economies over the last decade (notwithstanding the current market downturn) (O1). In developing economies, the demand for skilled and unskilled labour by the sector has been an ongoing challenge related more to a structural mismatch between the experiences and capabilities of local communities and the skills required (Imbun 2009). A key challenge is to develop long-term training and development strategies and partnerships (including those with other industry players, tertiary institutions, and governments) that are

flexible enough to respond to industry demand for large pools of workers and to retrain workers (AWPA 2013). O2 confirmed that a key issue was training enough people to be job-ready.

Local workforce literacy and numeracy skills can be an impediment to workers transitioning from unskilled to semi-skilled and skilled roles. The situation can create a significant business risk that companies need to understand and consider in their planning for workforce localisation (O1). Today, unskilled workers in both developed and developing economies require higher levels of literacy and numeracy in order to obtain work with projects and operations that are transitioning to greater use of technology (O1). This situation is understandable in developing economies with low levels of literacy and numeracy. As an example, for a project in Africa, situated in a rural subsistence economy with limited exposure to mechanical processes, training, and employment were a big step (CSR3). Developed economies like Australia (and not restricted to indigenous communities) also experience the need for literacy and numeracy employment programs that start at square one for unskilled workers (O1). “This phenomenon is putting a squeeze on roles transitioning through the pipeline from unskilled to skilled” (O1).

In a developed economy setting, where the demand for labour can outstrip supply, the issue can be getting access to enough locals. This situation was evidenced in Australia during the 2005-2012 boom and required companies to employ innovative skilling approaches. Albeit, most companies were pursuing their own, individual approach to training rather than progressing broader industry collaborative models (SC2).

HR1 highlighted a competency-based training (i.e., a green-hand program) which provided local people with no prior experience in the industry with the skills to transition into industry operational and technical roles. Originally the plan was put in place to address community concerns that there was not enough emphasis on local employment, more as a public relations measure, post-approvals, than a deliberate attempt to increase local employment. HR1’s organisation however had experienced considerable benefits for the project from the program:

> *We have found that at first there can be trade-offs with productivity and a slightly higher safety risk as people are not used to working on a project site, but this is short-lived with productivity increasing significantly (it generally takes people three to six*

months to get up to speed). One of the benefits is that we are getting people with a good cultural fit with our organisational values. The cost to train these recruits is up to ten percent of the cost of their salary over a six-month period, which is small compared to the benefits that they have brought to the workforce.

The culture of the local workforce catchment can influence the effectiveness of local hiring and companies might not realise this complexity when making jobs decisions (CSR8). For example, in Indonesia, where PD1 was involved in constructing an underground mine, it was taboo for locals to go underground due to their religious and customary beliefs. CSR3 observed a similar customary concern with underground roles in remote Australia where the company undertook an attitudinal survey of indigenous people and culture and found that they did not want to work underground. “Instead, we engaged members of the indigenous community in a variety of roles from rangers, cultural heritage mapping, and environmental functions. These roles provided a better balance between work and cultural obligations” (CSR3). CSR8 gave examples of projects in the Middle East and South-East Asia where the company had not realised the complexity of the social context until the workforce plan was being implemented:

In the Middle East regulations expected companies to have at least 35 percent local employment during the operations phase. We faced serious challenges during this phase due to the ability and willingness of locals to work in conditions not culturally accepted; for example, working outdoors, exposure to the sun, and getting dirty.

The same applies to South-East Asia with different ethnic groups, cultural issues, hidden roles, and responsibilities, which are known but unspoken … The government was pushing for locals from the host country to work but we found that in the main, they were not prepared to take up key skilled roles. There is also a hierarchical structure in the country; for example, where one ethnic group would not report to people from perceived lower caste ethnic groups. This situation was exacerbated by religious and gender differences and the willingness to work next to each other.

In the South-East Asia project, health and safety and the need to train people who have never worked in mining was a real issue. We had undertaken no previous studies on these behavioural and cultural aspects. … we should have had another twelve months focusing on health and safety training to be at a comfortable and suitable level.

While companies can encounter safety issues with new recruits, who are unfamiliar working in the industry and with people across developing countries who could have never held a formal job, PD1 outlined how this situation is not always the case:

> *In the African project context, local labour was mostly unskilled and had never held a job but from the outset their safety performance was impeccable. We needed to use industrial theatre and imagery to address language and cultural issues to communicate our safety requirements and behaviours, which worked well.*

EXEC2 acknowledged that the industry is not always the best at building skills and training capability in an integrated way. In Indonesia, EXEC2's company had found it difficult to achieve depth and capacity in their local workforce, transitioning people from unskilled to semi-skilled and skilled roles. CSR1 had observed situations in which locally-born employees were used as "political pawns to tick a box" and did not have the opportunity to move to other projects and locations to build their skills and experience and to move through the pipeline. SC1 had experienced a situation in a developing economy where a project employed a lot of local labour during the construction phase and surplus to requirements, because it was cheap. Engaging a lot of locals looked good on paper (as a percentage of the workforce) but was not good for productivity.

8.2.6 Workforce harmony

In many settings, the local and regional community comprise much of the workforce and, therefore, their local cultures and customs can play a major role in the attainment of industrial harmony. An understanding of the workforce cultural context can assist companies to understand the likely and real cause of industrial relations actions and issues in workforce planning and the spillover of this conflict into communities. For example, Imbun (2006a) summarised how the mining workforce in PNG has historically gone through many phases. Casual arrangements flowed to bonded and indentured labour systems (akin to voluntary slavery), through to constant conflict and the establishment of formal employment relationships stemming from the Bougainville mine in the 1960s and 70s and the country gaining independence. This latter period ended the previous paternalistic workforce arrangements and saw the establishment of the first labour union in PNG. The assessment of the historical workplace culture and intersection with local communities can assist in shaping an understanding of the motivations and orientation to work, especially in

developing countries where the potential labour supply could have had no previous wage employment experiences (Imbun 2006a, p. 324).

The underlying cause of disputes with workers can also be intertwined and difficult to separate out from local community-related concerns. For example, the major Ok Tedi industrial dispute in PNG in 1988 was substantially attributed to local employee concerns with housing, training, shift rosters and the company's failure to achieve local participation employment targets (Imbun 2006a, p. 321).

In fragile and conflict-prone developing economy contexts, employees from project-affected local communities can be "strategic partners for the long-term security [of] operations" (Imbun 2009, p. 48). In a PNG context, when local workers perceive that they are fairly treated, they will tend to be loyal to the company and can assist in maintaining industrial peace and orderly conduct in the workforce and local communities. In PNG , workers can still first and foremost have an allegiance to their tribe (Imbun 2006a). Local workers and their connections with communities in this cultural context can, therefore, provide an important buffer between unions and management in the event of disputes, providing a potential conciliatory broker role (Imbun 2006b). These local employees might have some form of project ownership through the negotiation of land access agreements, royalties, or equity through the approvals process which also strengthens the ties with the company. The recognition of the local workforce and community and cultural links in this light can provide insurance benefits for businesses, including supporting continuity of operations and reducing the incidence of prolonged disputes and conflict.

A recent body of research work by Ellem (2013, 2015a, 2015b), Bowden and Barry (2015) and Rainnie et al. (2014) provides substantial insight into the connection between jobs decision-making, industrial relations, and the social context in a developed economy[15]. Regional iron ore mining towns in Western Australia and coal towns in Central Queensland have, historically and up to relatively recently, been heavily influenced union towns where the workforce was also the community, forming the social and family fabric of that location (Ellem 2015b, p. 10). The cumulative impact of the clustering of many operations in proximity magnified this situation. Ellem (2015b) noted that previous research has found that "the

[15] Other researchers who have explored this link in a developing economy context include Smith and Dorward (2014), focussing on northern Madagascar and Bocking (2013), analysing Canadian mining company struggles in Mexico.

richer the social fabric and the stronger the sense of shared community around workers and their families, the greater the local demands are likely to be on companies" (p. 14).

Businesses in this context sought to break the ties between communities and unionised workforces. The process started in the Pilbara in Western Australia, assisted by neoliberal industrial relations reforms, which commenced in the late 1980s at the state level. Momentum then grew in the 1990s with a further boost through the 2005 Work Choices amendments at the national level (Bray and Underhill 2009; Cooper and Ellem 2008; Ellem 2015a). Over this period, non-residential workforce models, especially FIFO, emerged as an important de-unionisation tool: "the most compelling element of this work arrangement is that it fragments the workforce and divides community from paid places of work" (Ellem 2015a, p. 331).

BHP Billiton Mitsubishi Alliance's (BMAs) decision to pursue 100 percent FIFO in the Bowen Basin, Queensland, Australia for a portfolio of growth projects is an example provided by Bowden and Barry (2015) of a company pursuing this strategy (p. 66). Its approach has catalysed government and community focus on the impacts of FIFO on mining communities[16]. The closure of existing BMA mines during the current downturn, increasing the availability of surplus labour across the region, did not deter the company's 100 percent FIFO approach for growth projects (Bowden and Barry 2015). The Queensland Government, however, after much community, political, and union opposition rejected 100 percent FIFO in granting the Red Hill project approval (Lynham 2015; McCarthy 2015). The Government also committed to review the two 100 percent FIFO decisions for the previously approved Caval Ridge and Daunia mines (Sparkes 2015). The Queensland Government does not currently have local community-level residential jobs requirements in its major projects, mining or oil and gas legislation but has recently publicly announced its intention to introduce the same before the end of 2016 (Wilson 2016).

[16] The Standing Committee on Regional Australia (2013) conducted an inquiry into FIFO. The Queensland Government also undertook an inquiry through the Infrastructure, Planning and Natural Resources Committee's (2015) inquiry into FIFO practices in Queensland, Australia. More than 250 submissions were received for this second FIFO Queensland-commission inquiry (Haxton 2015) including ones from the CFMEU (2015). See media commentary on the Private Members Bill on 100 percent FIFO by Hagemann (2015) and the commitment by the Australian Federal Member for Dawson, the Honourable George Christensen MP (2015). Communities, unions and local, state and federal politicians have continued to pursue workforce choice and an anti-100 percent FIFO agenda in the media (Haxton 2015; Validakis 2014a, 2014b, 2014c). The CFMEU commissioned an independent report by SGS Economics and Planning (2014) to substantiate the claims that 100 percent FIFO would lead to negative economic consequences for Moranbah.

Noteworthy in the above example is that BMA is still employing locally from other non-mining regions in Queensland, and is, therefore, making a substantial, if not greater, local contribution to jobs than required by legislation during the time of negotiating project approvals. One of the regions, Cairns, has high unemployment and is reliant on the tourism sector with limited industry diversification. The provision of employment opportunities to these broader regions is an example of project linkages providing substantial benefits to the state economy from a sustainability perspective[17]. The approach can also reduce the vulnerability of the resource community to the cyclical downturn pressures on the industry by not artificially inflating the population base.

This method, however, can be met with significant opposition from the 'true locals' (those people living in the nearby resource communities and regions) when they believe that they are missing out on jobs and especially when they are in the midst of a downturn (Infrastructure Planning and Natural Resources Committee 2015). Considerable controversy and conflict can result when the local community does not support company workforce approaches. The above example highlights the politicisation that can occur connected to broader industrial relations agendas and local jobs decision-making.

8.3 Communities of interest

Another area of employment decision-making that intersects with the social context is the identification of rightful landowners for the project lease and determining the community of interest. Significant contestation can occur between the various parties in reaching agreement on the definition and boundary of project-affected communities, the customary or legal landowners, and Traditional Owners. Landholder tenure can also be ill-defined and hotly contested. Decisions in these areas flow through to influence jobs decision-making and who has access to jobs. Affirmative action for jobs access can create intended and unintended social consequences. When local participation regulatory requirements are in place, the definition of who is eligible for employment becomes particularly important for companies and communities. Figure 8 highlights the connection between the communities of interest and the intersection with jobs decision-making, with these sub-themes discussed in more detail in the below sections.

[17] See the newspaper article by Dalton (2015) that outlines how the State Government inquiry found that FIFO workforces (more broadly than the BMA-case) were worth AUD 934 million to the economy each year.

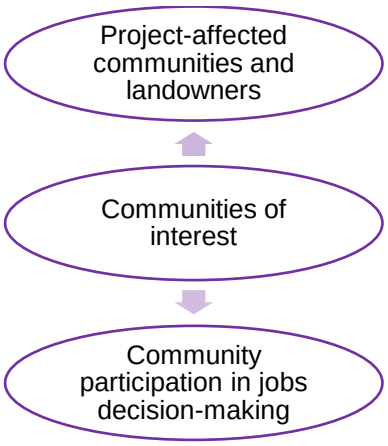


Figure 8 Communities of interest intersection with jobs decision-making

8.3.1 Project-affected communities and landowners

In locations where there are local participation regulatory requirements, the definition of the community of interest and the issue of eligibility for jobs impacts directly on the decisions made in the business factors theme. In this situation, the project business case and the social context directly connect. It sets the expectations for community and government stakeholders and flows through to influence the scope of the impacts to assess in the SIA. The definition of 'local' for jobs purposes also leads to the determination of benefits like local participation, via mechanisms such as integrated benefit agreements or other plans required as part of the government approvals process.

PNG is an example of a country in which the responsiveness to landowner aspirations and expectations relating to local jobs is a top priority for the community and supported by legislation (Imbun 2009). This priority has seen employment policies developed to cater to landowners first. Within countries where there is this expectation, companies are developing local jobs approaches from the local (landowner) level to the provincial and regional level (Imbun 2009). The Porgera Mine Agreement provided the first employment policy in PNG, which stipulated who should get preferential employment from the mine among the landowners, province, and nationals.

The identification of a project-affected community and the determination of local employment zones and affirmative action approaches can, however, be "divisive to long-standing socio-political networks" and interactions (Gilberthorpe and Banks 2012, p. 186). Local communities, landowners and clans will seek to be in the affected zone to get access to benefits, and significant angst can occur when these groups perceive that the distribution is

inequitable or that they have missed out (O1). As is the case in PNG, “impacted communities are characterised by pre-existing and more recent sets of hierarchies, inequalities, and power-laden relationships, based around gender, age, and social and geographic status” (Banks et al. 2013, p. 490). “The layering of spatially and socially uneven access to resources from mine operations onto these already diverse communities produces complex patterns of inclusion and exclusion” (Banks et al. 2013, p. 490). Company decision-making on the project footprint, design, and workforce profile can be affected by and impact on these already complicated relationships and can lead to clan and tribal warfare.

Some CSR interviewees believed that there was a need to recalibrate the understanding of ‘local’ for employment purposes to enable a broader definition, possibly including a stronger regional focus, bringing in other cultures and tribes where relevant (CSR1 and CSR3). Regions can also be defined by geographic and administrative boundaries (which link to aspects such as education and training planning zones), taking into consideration who administers the regions and whether there are overlaps with other areas where the project takes place (CSR6). A key issue with significant complexity is how to put definitional, recruitment, monitoring and reporting rigour and authority around these local workforce eligibility decisions (CSR3):

> *The expectations across certain locations such as Africa are massive compared to Asia. Equitable allocation based on the definitions of local can be a tough issue, and if projects/exploration gets the mix wrong, there can be the potential for considerably prolonged conflict. (CSR7)*

Examples of definitions of local for jobs purposes included:

- project in a remote community in Australia where the definition of local/local was a 50-kilometre radius from the local post office (CSR3)
- developing economy with high local employment expectations where impact areas defined eligibility for jobs including local/local (communities and villages in impact areas), next community outside the directly affected area, provinces/states, country, and cross-regional/supra-regional (CSR7).

At the same time, caution is required regarding the definition of local employment categories (and the delineation of affected communities) to avoid companies having to pick up the tab

for broader issues which can result in a series of knock-on effects (CSR3). In developing economies, in particular, communities will often do anything to be classified in the mine-affected areas to secure benefits and compensation, which can raise political unrest for the project (CSR3). In Ghana, a community member eligible for local/local jobs required signatures from three key dignatories (CSR3). “Unfortunately, corruption can slip in; for example, paying for signatures, which can undermine the process and inadvertently lead to more social issues such as in-migration” (CSR3).

The provision of jobs for compensation for loss of the use of land and livelihood impact associated with securing the project lease is another area for caution (CSR1). For example, in Africa, the provision of employment as compensation for resettlement prevented the removal or performance management of security workers who had breached company policies (CSR1). CSR1 believed that this is the wrong way to approach jobs “as it makes the job a right rather than an opportunity”. “A job is earned, and compensation is owed, which should be a fundamental principle underpinning resettlement or economic displacement” (CSR1). A company has an obligation for community stakeholders including landowners (in developing economies) to obtain some benefits like employment (CSR3). “It is a right to have the opportunity, not the right to be employed” and does not mean the local landowner employee does not have to abide by performance measures of the workforce (CSR3). Poor performance by members of the local workforce has an impact, and this consideration needs to be structured into work agreements and understood by community members (CSR3).

8.3.2 Community participation in jobs decision-making

Social and cultural community knowledge enables an assessment of workforce suitability as well as the development of an engagement program to consult communities on job opportunities and what the project will and will not deliver (SC1 and SC3). The understanding of local priorities and feedback related to jobs issues and opportunities, however, also requires testing to ensure that companies are not obtaining views from elites or peak bodies, which can represent “a voice of a few” (CSR3). CSR4 recommended that companies and project decision-makers needed to connect to local community members on an emotional level in order to work through issues and to acknowledge and address problems. This perspective was suggested by CSR4 as being particularly important in indigenous settings with hidden meanings and entrenched beliefs. CSR2 and F2 had both witnessed the effectiveness of taking this psychology of change slant by community relations

personnel in getting to the heart of social issues during the project approvals phase and operations. CSR2 believed that it was important for companies to identify people and leaders in-waiting to lead social empowerment of change within the community (and also within the company), with jobs an important agenda where this approach was required. Applying this method would enable the 'social licence to operate' to be locally defined for jobs decision-making (CSR1). For jobs, CSR1 believed that a social licence to operate has the most potential to be attained when project decision-makers respect and acknowledge the views of local community members and reflect these in project planning in terms of,

> *the expectations that people have, the opportunities to gain access to jobs, the quality of the jobs and the ability to rise up once they have a foothold.*

GS1 believed that the term 'social licence to operate' does not go far enough to explain the mutually respectful and beneficial relationship sought between companies and communities. GS1 recommended that companies should consider social issues and impacts more holistically striving for an 'enduring licence to operate', "a [privileged] state of being when community and society as a whole wants you there".

8.4 Socio-economic considerations

A broad range of socio-economic areas can be positively or negatively affected by project jobs decision-making as shown in Figure 9. The level of community poverty, inequality, inward and outward migration, human rights, housing, health, and equitable access (i.e., for women, youth and disadvantaged) are examples, each of which will be unique to the project location. The influence of the project on these areas can also have a positive or adverse impact on the ability of the resource project to access a suitable pool of skilled labour as explored within this section. Socio-economic considerations, therefore, directly link to business factors and the communities of interest themes.

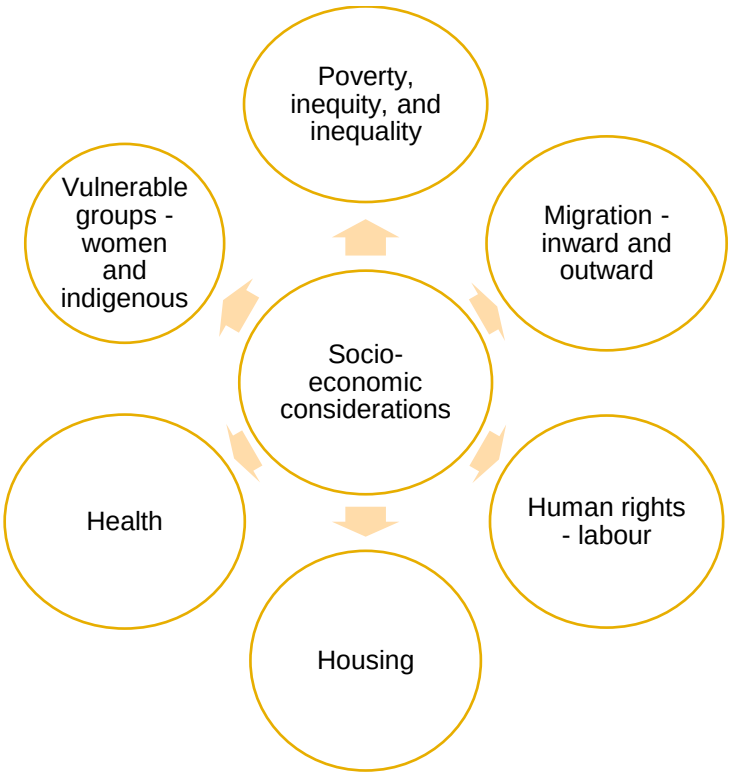


Figure 9 Intersection of socio-economic considerations with jobs decision-making

8.4.1 Poverty, inequity, and inequality

Poverty, inequality, and inequity are interrelated themes that permeate through all socio-economic areas and impact on the ability of local communities to participate in the workforce. The approach taken to the designation of affected communities for jobs purposes can lead to positive and unintended consequences for communities, with the potential to exacerbate existing poverty, equality, and equity issues. Inequality refers to the uneven patterns of distribution of outcomes (i.e., amount of revenue and number of jobs and who receives them), and inequity refers to the unfair and avoidable impacts from the allocation of opportunities (Bebbington and Bebbington 2010, p. 210). Widening income inequality can exist in resource communities between those who are directly employed in the project and those who are not. A rise in per capita income stimulated through employment within the resource sector often coincides with an increase in poverty levels elsewhere (Deller and Schreiber 2012).

Each phase of the project lifecycle can trigger employment inequalities. Examples include some people having access to jobs, with skilled roles going to trained people migrating to the area and/or jobs concentrated in the construction phase (Bebbington and Bebbington 2010) as well as some salaried employees receiving redundancies during a downturn.

Practical examples raised by SC3 and also referred to in the literature by Imbun (2009) are local participation requirements and commitments favouring landowners in accordance with traditional practice in PNG (representing potential inequality in the distribution of outcomes). In this instance, non-landowners who have lived in the community for a long time might not have priority access to jobs given their status. These community members can be the most vulnerable, which represents the unfair and avoidable inequitable impact from the distribution of opportunities. The same situation can occur for refugees and women in patrilineal societies who are divorced from their husbands and live in the same community, with the husband maintaining landowner status and therefore having priority access to jobs (SC3).

Thorbecke (2013, pp. i33-35), drawing heavily on the research of Duclos and O'Connell (2009), summarises seven main poverty traps that can hinder local communities from gaining access to work. Conversely, these traps can reduce access by projects to a skilled and productive local workforce, which in turn can impact on the cost of labour and the ability of the proponent to realise local employment commitments (whether required in the legislation, project approvals or indigenous agreements).

The first poverty trap is 'dynamic and intergenerational', reflecting household characteristics such as education, health, and income levels of parents. This poverty trap can influence the skill level in communities and literacy and numeracy, the health status of community members, and impact on their fitness, productivity, and attitudes to work. The second trap is 'social and economic exclusion' which includes discriminatory factors such as caste and race (examples of cultural impacts on the workforce were covered in the skills shortages and mismatches section above).

The third poverty trap is 'gender-based', incorporating the role of women and their treatment in the community and expectations. This trap requires consideration by companies in the structure of their workforce diversity approaches and the determination of roles suitable for females as well as the development of a code of conduct. 'Nutritional' poverty traps are the fourth area. A lack of food security and malnutrition can significantly impact on fitness for work and workforce productivity. The fifth category, the 'demographic' poverty trap, refers to high fertility in poor developing economies as a way to ensure that some children survive to provide for their parents in their old age. This situation can result in increased dependence

on the resource project as a source of income for jobs and families. ‘Spatial development’ is the sixth trap. Distance from and lack of connectivity to transport and urban centres can result in high reliance on the project by communities and the expectation that the project will provide jobs and transport-related infrastructure. The seventh poverty trap is ‘inadequate assets’. It refers to household assets (i.e., human capital, land, livestock, equipment, and transfer income) that are below the level to sustain a major macro shock such as a natural disaster and closure of a resource project. In this situation, communities can be particularly vulnerable to jobs impacts over the mining lifecycle, including a project failing to proceed, downturns, closure, and increased automation.

While these poverty traps are evident in many developing economies, indigenous communities in developed economies can experience similar impediments to the realisation of socio-economic development opportunities and employment with the resource sector (Haslam McKenzie and Hoath 2016, pp. 160-161). In remote, indigenous settings within developed economies, the gap between the have-nots and those who are financially comfortable can be even more pronounced than in developing economies where the distinction between those in poverty and others classified as working or middle class can be less obvious. A comparison between Aboriginal People in the East Kimberly of Australia (a resource region) and non-aboriginal people using 2011 Census data highlighted the extent of social disadvantage. Only 25 percent of Aboriginal people identified as being in paid employment, compared with 87 percent for non-aboriginal people. Aboriginal communities also experienced high incidence of chronic diseases with the average male dying 30 years before his non-aboriginal male counterpart (Wunan 2011). The relative disadvantage encountered in a developed remote indigenous community can exacerbate equity and equivalency issues associated with access to jobs.

Jobs can make a substantial contribution towards reducing poverty but conversely, the loss of a job can magnify existing poverty levels. A practical example for jobs is the flow of wages to benefit families in developing as well as developed economy indigenous communities based on familial relationships. Jobs can decrease poverty over a much wider footprint than the immediate workers; for example, in Botswana many mines pay family wages which flow through to support poverty alleviation in rural areas (Gwebu 2012). At Orapa-Letlhakane mines in Botswana, 2,600 workers sustain 10,000 dependents and, at Selebi Phikwe, 5,000 employees assist in sustaining 44,600 township inhabitants, while 2,320 Jwaneng

employees support 14,000 dependants (Ministry of Trade and Industry 2012). Conversely, the loss of jobs in these settings would also flow through to impact on a much larger number of people. For example, the workers who lose their jobs may already have had inadequate assets (the seventh poverty trap) given that their wages supported an extensive network of other people. Their immediate families may also lose access to company health and education scholarships and programs that enable them to improve their socio-economic status. The location of the mine may mean that workers still live in remote areas with the operation the main source of work in the formal economy, making it difficult to access work without relocating the family. Sensitivity to the flow-on effects and the interconnectedness of poverty in the community is relevant to the impact of changes to the workforce composition resulting from retrenchments and rapid industry downturns, closure planning and the displacement of roles through technology.

8.4.2 Migration: inward and outward

Across developed and developing economies, expatriate workforces, and migrant labour have been an essential component to ensure continuity of the labour supply and access to technically-specific skills not available at the local level (Nyame, Andrew and Yakovleva 2009). Migration (especially in developing economies), however, can create significant community issues when people shift to the area in search of work (CSR1, CSR3, EXEC1, GS1, PD1 and SC3). The workforce profile, jobs commitments and decisions on the definition of local and the location of road, transport, and logistics infrastructure all have a major effect on the prevalence of in-migration, which companies may not always recognise (SC3). Company labour policies can therefore be a lever for in-migration management.

Banks (2008) demonstrates the potential explosion in population from in-migration in search of work. At Porgera in the Special Mining Lease boundary in PNG, the population near the mine increased from 2,000 in 1990 to 15,000 by 2004 (p. 30). More than half who relocated to the area did not come from the district, which had a devastating impact on social relationships and cohesion. When large numbers of young men with nothing to do are in communities for an extended period looking for work, in already conflict-prone community settings, they can escalate tribal issues or stir up trouble with locals (Banks 2008). In this example, the locals considered themselves in the minority (Banks 2008, p. 30). In a Ghanaian developing economy context, mine-site data obtained by Nyame, Andrew and Yakovleva (2009) suggest that the farther migrants have travelled in search of work, the

longer they spend at the mine gates and in the nearby local communities in search of work. The smaller the community and region, the more vulnerable it can be to the impacts of inward and outward migration (Amcoff and Westholm 2007). In-migration can create rapid changes in the social fabric of communities, leading to ethnic fractionalisation and pluralism and associated cultural clashes between original residents and newcomers (Pegg 2006b, p. 378).

> *In Indonesia, I experienced mining projects that involved numerous local cultural and religious backgrounds. The impacts of in-migration associated with seeking access to local employment and these diverse backgrounds created numerous, difficult, ongoing issues for our project and operational team and in the local community. (PD1)*

Population influx from in-migration can contribute to a wide range of social problems, including pressure on already stretched health facilities, a rise in prostitution, and the spread of communicable diseases (Kitula 2006; Pegg 2006a, 2006b; Shandro et al. 2011). The higher incomes of resource sector workers in addition to the rapid influx of people seeking work can lead to inflationary pressures for essential goods and services such as food, fuel, and housing. Communities may also experience a greater prevalence of substance abuse, alcohol dependency, and gambling (Banks et al. 2013; Carrington, Hogg and McIntosh 2011; Van Alstine and Afionis 2013). In some developing economy location contexts polygamy can also rise due to women from other areas seeking to marry local men to attain 'local status' for jobs and benefits purposes, irrespective of whether the men have other wives to share in the benefits (SC3).

In addition to unemployed people shifting to the location in search of work, projects also employ workers from other regional, national, and international locations. This form of migration, as well as having the potential to exacerbate the issues mentioned above, can also create other problems. Research by Rees (2010) demonstrates the connection between working in the mining industry and the spread of HIV and other diseases among South African gold miners. The case study explores the impact of the migrant labour system on heterosexual relations and the increase in HIV when workers come from neighbouring Sub-Saharan African countries to work. This form of oscillating migration, where workers (mostly male) live in single-sex hostels and spend long periods away from their families, can promote an environment that encourages multiple partners and concurrent relationships

(Rees et al. 2010, p. 401). HIV and infectious diseases can, therefore, be spread in the hostel, to nearby local communities as well as the worker's residential community.

Relocation of project employees from other locations can lead to changes in migration patterns and the composition of localities. Bury (2007), in a recent decade-long study of the migration modes in the mining region of Cajamarca in the Peruvian Andes, found that the skills mix of national migrants to the area had changed significantly. Historically during growth periods, large numbers of unskilled labourers seeking work would shift to the area. More recently, highly skilled new migrants relocated to take up employment with mining operations or contractors. Highly qualified international workers also relocated to take up work and these workforces tend to live in geographically concentrated elite clusters. Migration patterns have resulted in a change in the social fabric of local communities and regions. 'Them and us' tensions between the original residents (who might not be able to get work with the project) and new residents (who shift to the region for work) are now evident (Bury 2007, p. 387).

Botswana is an interesting example of a developing economy where minerals (mostly diamonds and not oil producing) combined with good governance, economic management and policy has been a catalyst for country growth (Lewin 2011). The country has, therefore, managed to avoid many of the negative impacts associated with the resource curse, which is prevalent across many developing economies. In Botswana, it has been found that the government displayed good leadership, with a high degree of transparency, reinforced by continuing the Tswana tradition of consultation in addition to respect for the enforcement of law and property rights (p. 82). Despite positive growth and improvements in social indicators, however, the country still suffers from relatively high levels of income inequality and unemployment largely as a result of rural to urban migration (p. 82). This example demonstrates that while the local level may benefit from development that the ability for the nation to gain overall improvements in socio-economic indicators, and to ultimately decrease the reliance on the resource sector may be compromised by migration impacts away from other locations.

8.4.3 Human rights: labour

Resource projects, especially in developing and conflict-prone locations can play a role in lifting the understanding and mitigation of potential human rights issues emanating from the

interaction, intersection, or impact of the workforce (and the workforce structure) on host communities and regions. The adoption and implementation of industrial relations policies and compliance with host country accords as a minimum are examples (Montgomery and Maggio 2009). Areas of human rights that intersect with jobs decision-making include freedom of association and collective bargaining and the equivalency of pay and conditions, labour codes, anti-discrimination and equal employment opportunity, cultural protocols, child labour, bonded and indentured labour and gender equality (Graetz and Franks 2013). When implementing a human-rights-based approach in the workforce, companies need to be cognisant of the intersection with local cultural and country protocols and consider how areas of potential conflict should be sensitively managed. For example, freedom of association and collective bargaining could conflict with some state political regimes and local cultural customs. Another example is adherence to equivalency of pay, which can create equality in the workforce but may inadvertently exacerbate inequality in some community settings between those who work in the sector and those who do not. Equivalency of pay can, however, also impact negatively on the project's business case.

The interaction of the workforce and community can occur, for example, as a result of local content in supply chains, contractor activities, security forces hired by the company, workforce community volunteering initiatives, non-resident workforce accommodation villages, and expatriate workforces. The case of extensive human rights abuses, including the rape of many women in the community by privately contracted security personnel at the Porgera Gold Mine in PNG, is an example of a negative interaction in a developing economy context (Human Rights Watch 2014). CSR4, based on experiences in West Africa, believed that, at the very beginning, the project should establish a workforce code of conduct which in many locations could challenge accepted community cultural behaviours. The code of conduct needs to establish expectations and behaviours up-front, including activity in the community and family, the latter of which has traditionally been off limits.

8.4.4 Housing

Business decisions regarding the workforce structure, accommodation, and policies on the conditions provided for local workers can create pockets of vulnerability in host communities (CSR1). Higher demand for housing (by resource sector workers and the general local population) can push up accommodation prices and rents. This situation can lead to the cumulative impact of housing unaffordability for those who do not work in the industry or

who do not receive subsidised housing (Carrington, Hogg and McIntosh 2011; Franks et al. 2010; Petkova et al. 2009). Company housing policies for workforces, including the provision of free or subsidised accommodation, can exacerbate the issue if not well thought through relative to the local context (EXEC2).

Indigenous communities near resource projects in developed economies can frequently experience sub-standard and overcrowded housing stock, which can provide a significant supply-side barrier to gaining employment with resource projects (Moran 2009). Companies can consider advocating government for place-based housing strategies or contributing themselves through the indigenous agreement making process. This approach can support a development pathway to improve the ability of these communities to productively participate in the workforce. Companies may also gain access to a much lower cost workforce in the longer-term than flying in a significant number of outside workers (Moran 2009). Housing stability can support these communities to focus on building skills to access jobs in Aboriginal-owned businesses and other industry sectors to decrease the overall dependency on the resource sector for employment over the longer-term (as discussed under the business factors theme above).

In developing economies, considerable disparity can exist between workforce housing policies and employment conditions. Conflict can occur between company employees who may have subsidised or company-provided accommodation, and contractors who may not have housing benefits. Other people in the community employed in non-resource sectors, the unemployed, and the vulnerable can all feel aggrieved at the quality of their living arrangements compared to that of company employees and perceive high degrees of inequality across communities. Examples previously mentioned in this chapter, which are intertwined with disputes over other benefits, is conflict over the equivalency of conditions in Zambia, the Yanacocha project case in Peru, and the dispute on allowances at Ok Tedi in PNG.

8.4.5 Health

Projects require access to a healthy workforce. Previous sections have highlighted that in some settings, dynamic and intergenerational poverty traps, pressures from in-migration, and already inadequate health infrastructure can impact on locals being fit for work. This

situation, in turn, impacts the ability of companies to access locals to fill roles and on the attainment of local participation quotas.

Often large-scale resource projects enter developing nations and communities where there are already significant health issues or existing service deficits (ICMM. Problems can include a lack of health facilities, nutritional disorders, high infant mortality and morbidity, the high prevalence of HIV and other communicable diseases, endemic diseases such as tuberculosis, and issues associated with the mental health of community members and environmental exposure causing health impacts (ICMM 2011a). Indigenous communities in developed economies can face many of the same health issues. In the advanced economies, there can also be a lack of health facilities in resource communities (for families, youth, workers, and the community) and a high prevalence of health-related conditions such as alcoholism, mental health issues, and sexually transmitted diseases (STD).

In-migration and/or the boom-bust lifecycle of resource communities can exacerbate the health situation (Pegg 2006a; Shandro et al. 2011). The health status of the community can have a significant impact on the ability of locals to obtain employment. At the same time, company health programs can lead to rapid improvements in the health of the local community and the workforce and their families, providing positive benefits and a lasting legacy. PD1 provided an example which demonstrates the importance of community health:

> *In Africa, the biggest challenges were social and not technical. From a suitability for work perspective, the biggest issue was malnutrition: the local population was not fit enough to do a day's work. There were also significant STD issues due to prostitution. AIDs was not so much of an issue in the country, but a key issue was endemic AIDs in other African countries [and] therefore importing AIDs into the country from other African countries for the local workforce. We undertook a benchmark survey of the country to understand the AIDs profile to challenge likely approvals requirements regarding importing the workforce from nearby African countries as the potential for AIDs transmission from those other countries concerned us.*
>
> *For the African project, fitness for work was important. After completing a detailed health assessment, we identified 800 job-ready people in the country (including from a health perspective) and provided them with substantial training to take advantage of opportunities.*

8.4.6 Vulnerable groups: women and indigenous

Other sections of this chapter have highlighted the difficulty that vulnerable and disadvantaged groups encounter in attempting to access employment. Examples include the previously mentioned poverty issues, non-landowner, or refugee status impacting on the categorisation for preferential employment as well as issues with the quality of education and skills mismatches across developing resource communities. Chapter Two further noted the vulnerability of youth due to high unemployment levels and a lack of access to jobs in developing economies. The chapter also mentioned that DFIs are increasingly expecting resource companies to consider employment opportunities for the disadvantaged, including women and indigenous people as key stakeholders who have a high propensity to be vulnerable within resource communities.

DFIs expect that resource companies will consider gender and the empowerment of women in jobs policies and programs (UNDP 2007). Governments also often have these expectations. The workforces of large-scale resource operations are, however, still male-dominated, which can create a masculine culture in the workforce and local community (Mahy 2011). The extent to which companies embed (or mainstream) gender in jobs decision-making during the project design and approvals phases will depend on the level of external expectations, cultural contexts, internal organisational policies and approaches and company understanding (Daly 2005).

For example in PNG, unrelated men and women working together can be an issue that engenders distrust between workers and their spouses and can erupt into domestic violence (Macintyre 2011). Women also often have additional family, cultural, and livelihood (such as vegetable production) pressures in indigenous communities in developed and developing economies, which can impact on their ability to participate in the resource sector workforce (Kemp et al. 2007; Macintyre 2011).

Chapter Two highlighted that the resource sector could make a significant contribution to indigenous employment, assisting in addressing issues of disadvantage that can prevent indigenous people from gaining access to work (e.g., education and health status). The chapter also identified that negotiated agreements between indigenous landowners and resource companies are commonplace in Australia and Canada as well as more widespread across developing economies (O'Faircheallaigh 2012). These agreements often identify

indigenous employment opportunities or make specific commitments (O'Faircheallaigh 2012). DFIs that adhere to the IFC Performance Standards and Equator Principles may require project planning to demonstrate a focus on indigenous peoples and the distribution of benefits consistent with IFC Performance Standard 7 Indigenous Peoples (clauses 18, 19 and 20) [18].

8.5 Service delivery enablers

For new resource projects, especially in poorly-governed developing economies (which is the situation over many countries in Sub-Saharan Africa), companies can find themselves in the position of having to take a more up-front CSR and economic and social development position as outlined in Chapter Two (Ackah-Baidoo 2012). Governments often seek additional support from companies in traditional government areas to address systemic high poverty levels, illiteracy, unemployment, poor governance, and a lack of infrastructure (Muthuri, Moon and Idemudia 2012). Figure 10 highlights the main service delivery enablers that intersect with jobs decision-making as discussed in this section.

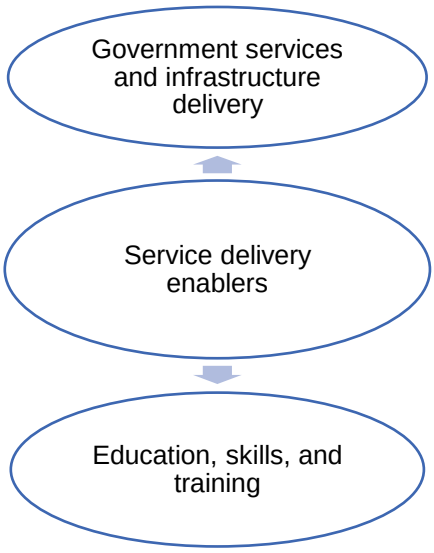


Figure 10 Service delivery enablers intersection with jobs decision-making

8.5.1 Government services, infrastructure, education, skills, and training

Given the connection of social infrastructure to local jobs decision-making, companies are required to decide on the extent to which they are prepared to take a more up-front role with

[18] A number of guides provide a starting point to assist companies to understand and progress local indigenous employment with stakeholders: Indigenous agreement making – Limerick et al. (2010), mentoring – Taufatofua and Brereton (2010), employment, training and enterprise development – Barclay, Parmenter and Barnes (2014) and community development agreement making more broadly – Brereton, Owen and Kim (2011).

blurrier lines between government and business service provision. The location and workforce profile will determine the social infrastructure required and expected by communities and government to sustain the workforce. Residential workforces in remote, developing, and indigenous communities in developed economies could need improved accommodation, transportation to access work, and the consideration of water and sanitation services which improve the health and productivity of the workforce. Other infrastructure and services sought from communities and government for the workforce can include electricity, access to financial services (to assist with the transition to a cash economy), health and medical facilities, and crime prevention.

Countries can also often have institutional and governance issues associated with education that impact on the ability of the state and communities to optimise local employment. Oil and diamonds, in particular, are susceptible to and can exacerbate or even create socially dysfunctional political behaviour as covered in the resource curse discussion in Chapter Two (Blanco and Grier 2012; Cabrales and Hauk 2011; Gylfason 2001a, 2001b; Hilson 2012a; Karl 2007; Kolstad and Wiig 2012; Lagos and Blanco 2010; Robinson, Torvik and Verdier 2006 and CSR6). This environment can produce policy failure through low educational attainment to support jobs linkages due to the weakness of institutions (Karl 2007). Remote indigenous communities in developed economies can also experience significant human capital constraints from education policy failures and inadequate related services and infrastructure, which impacts on the capacity of Aboriginal People to obtain jobs (Taylor and Scambary 2005).

In the rush to put in place initiatives to address education-related issues, companies and countries do no always get to the cause. This situation means that; however well intentioned, interventions and community development programs could make little difference to the underlying governance issues and quality of education. CSR6 provided examples of changing company approaches to better address issues:

> *In Latin America, there is a very strong regulatory environment and the high expectation that projects must support social development. In our approach, we identified and assessed the country bottlenecks in terms of supporting development. For us, the problem was not at the university level. Getting to university was the issue, and, therefore, we needed to target the problems in secondary schooling through programs designed to get people through the bottlenecks.*

In Sub-Saharan Africa, we have done the same at our project. The government and international donors had focused on getting youth into education, but it was at the expense of the quality of teaching [in] vocational education and low training quality. It is important to understand how the system works and identify what makes sense from a supply and demand side. Some responses may be programs, but others could require policy changes at a broader government level.

An emerging focus by companies is to collaborate with other businesses, DFIs, foreign aid entities (e.g., the World Bank), and government to deliver education and training infrastructure. When many firms in the same sector are pursuing project approvals at the same time in countries, however, the environment can be competitive with companies less likely to want to collaborate (CSR4, CSR5, CSR7, EXEC2, SC2 and SC3). In EXEC2's current project, resource companies have built their skilling arrangements but more recently (post-approvals), companies are coming together to support regional initiatives like jointly funding skilling academies. CSR7 provided an example from Tanzania where the firm contributed to a training initiative at a broader country level and actively worked on curriculum development in collaboration with other companies in the region. In PNG, CSR4's company was supporting the government to re-establish vocational training facilities with the first phase a training program to participate in baseline studies and longer-term involvement with the education department.

8.6 Broad-based development

The project approvals phase provides an opportunity for companies to negotiate with the government the distribution of benefits (summarised in Figure 11) to support long-term development and job creation and to minimise the impact of and potential for Dutch Disease. Advantages of this approach relate to decreasing the dependency on company operations and the resource sector as a whole over time and particularly at closure.

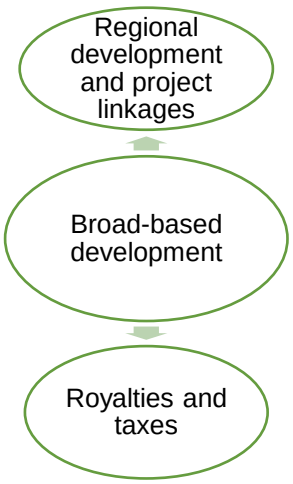


Figure 11 Broad-based development intersection with jobs decision-making

8.6.1 Regional development, project linkages, royalties, and taxes

The structuring of jobs commitments to take a regional approach can provide companies with a broader workforce skills catchment and spread the benefits of development more equitably. Nevertheless, taking a regional approach requires balancing with local participation regulatory requirements and the definition of the community of interest. The extent to which companies take a regional development approach to jobs during the design and approvals phases will depend on the country, project, and business context (O4). A regional approach can present risks for businesses, because it could lead to government abrogating its responsibilities in areas like social, educational, and health infrastructure provision (CSR5). Shared infrastructure and development projects, however, provide opportunities for collaboration on jobs initiatives between industry, government, and DFIs (F1).

Rio Tinto's Simandou project in Guinea, now-mothballed, was an example of a company working from the outset with the IFC and government to leverage infrastructure for broader development as a comparative advantage regional development approach. The project was a partner in a broader regional development strategy supporting project linkages, growth, and jobs across industries in which Guinea has the potential to build a comparative advantage in aquaculture, horticulture, agriculture, and forestry (Di Boscio, Slade and Ward 2014). Taking this approach means that there are opportunities to utilise strategically the supply side inputs required for resources projects and the up-front investment as a catalyst for a much broader path of community, jobs, and industry diversification (Bastida 2014; Tonts, Martinus and Plummer 2013). The Simandou Project, illustrates, however, the

uncertainty regarding projects proceeding even after government approvals are obtained, with Rio Tinto shelving the project (Rio Tinto 2016).

O5 recommended that, for each project, there needs to be a definition of the potential for regional linkages (covered in Chapter Two). This approach recognises that the local community must have the capacity to supply the inputs required of the resources projects to capitalise on backward and forward linkages in accordance with staple theory (Fleming and Measham 2014, p. 10, 2015). Strengthening backward linkages in the supply sector can lead to productivity and operational improvements throughout the supply chain, stimulated by the demand-push factors of the resources project (Lydall 2009, p. 114). Smaller suppliers, however, require access to skilled and unskilled labour to capitalise on the opportunities presented by the sector.

Beneficiation, which refers to forward processing and development opportunities linked to resources, is a growing legislative and policy arena in resource countries with a key aim being to create local jobs. South Africa is pursuing a beneficiation strategy with minerals "identified as one of the six key sectors in [the] Government's New Growth Path strategy for creating five million new jobs by 2020" (Deloitte 2014, p. 4). Some companies such as De Beers are recognising the strategic importance of incorporating an emphasis on beneficiation and aligning with the economic development agendas of a host government (DeBeers 2012, p. 2). Generous tax incentives can promote beneficiation (Taylor 2013). A view expressed by an interviewee was that if it were good to beneficiate locally, companies would do it, with the benefits outweighing the costs (O1). O1 explained how in reality "policy selections can be cumbersome and work contradictory to objectives":

> *Downstream roles are usually semi-skilled and skilled and do not exist in the local community, so companies need to bring in external expat roles. However, beneficiation sounds politically attractive. Governments can't dream and say, because we have a mine here we have to have a manufacturing facility at the mine gate.*

Interviewees believed that ultimately, the biggest benefits that projects make at the national level are through financial contributions to royalties and taxation (F1 and O1). Countries will realise benefits when these contributions are used wisely towards reinvestment in

infrastructure, education, and human development, and underpinned by strong governance, creating an environment conducive to macro stability (World Bank 2011).

8.7 SIAs informing jobs decision-making

The above sections have identified a broad range of potential social consequences as a result of project jobs decision-making across five interconnected themes. This section draws on interviewee feedback to determine the role and appropriateness of the SIA in providing socio-economic information to inform the jobs decision-making process.

The literature reviewed in Chapter Four indicated that the SIA is widely viewed by companies as a regulatory compliance tool to identify immediate and direct project social impacts and mitigation measures, rather than as a proactive tool to assess broader social matters. During the approvals phase, unless regulatory mechanisms require a more intensive approach, the focus by executives and the project director is on securing approvals, assessing and containing the immediacy of local impacts and gaining acceptance of affected communities (EXEC1, EXEC2, CSR5, PD2, SC2, and SC3).

Companies, therefore, will normally draw boundaries around project impacts and the related social analysis to meet the requirements of legislation but also to minimise the risk of expectation raising, commitment creep, perceived inappropriate government conditioning, and precedent setting (CSR8, HR1, SC2 and SC3). The assessment of interlinked and broader social issues and opportunities (including for jobs) receives limited (if any) attention in the SIA to minimise these risks and to satisfy company nervousness about this phase (HR2). Related to jobs, “economic opportunities, jobs, taxes, salaries, migration, and health to name a few are all considered as separate and more general chunks for analysis” (CSR1).

Notwithstanding this emphasis by executives and the project team, the SIA can still play a role to inform jobs decision-making. The present approach to developing the SIA, however, is still too reliant on the understanding by CSR operatives and project directors to recognise social issues and to take them into account early enough in project decision-making (CSR6 and CSR8). The quality and depth of analysis in the SIA can also be affected by the variability of consultants’ skills, in some cases resulting in social analysis, the identification of impacts, and the assessment of associated governance issues being aspirational, top-down and shallow (CSR6, CSR8, SC3 and SC2).

Even if companies wanted to take a more proactive and systems approach, the challenge is to seek approvals from governments and communities when little is known about the project, because there are still many unchartered variables (SC2). This situation constrains the identification of impacts; for example, the size of the workforce becomes very political, and numbers can be sensitive (SC2). Another reason the SIA has less (if any) influence on jobs decision-making is that project technical roles consider employment a benefit and, therefore, impacts associated with the jobs model may not be given weighting by these functions (CSR1 and SC3). By contrast, SIAs are often mainly focused on identifying and mitigating negative impacts as discussed in Chapter Four.

For the most part, in Australia and developed economies, CSR1 and SC3 believed that the view regarding the role of the SIA prevails but, in some locations like Canada and over Latin America, regulatory requirements are exerting coercive pressure on companies to apply a more focused approach to social analysis. Significant social issues experienced during the approvals and implementation phases across PNG, Latin America, Africa, and South-East Asia, are also leading to improvements in company approaches as well as a greater internal company normative and cultural-cognitive understanding of the requirement for change. Executives and project decision-makers in these contexts are seeking to address social analysis shortcomings with the SIA process as well as developing a complementary internal product to assist in better understanding of impacts and opportunities (CSR1, CSR6, CSR8 and SC3).

Some companies consider more detailed social analysis and proactive social opportunities and commitments separately from the SIA or in subsequent project phases, potentially in parallel to the construction phase (CSR8). This analysis may be through internal company processes (e.g., social and employment studies and surveys) or other legislative requirements such as Impact and Benefit Agreements (often prescribed by law in Canada) or impact management plans (SC2 and SC3). CSR8 highlighted that, depending on the project, companies might still not have the full community relations or HR team in place to assess the social context or to engage with communities regarding job opportunities during the design and approvals phases. This lack of key resourcing can affect the scope, quality, and usefulness of the internal social analysis. The timing of the consideration of opportunities through these other mechanisms often coincides with companies having a firmer concept of the business case and final design, leading to a heightened receptiveness

to proactive measures (SC2). These studies are either too formative to include in the SIA or, more often, deliberately kept separate for internal planning purposes, and not in the public domain (CSR1, CSR8, and HR1).

The development of more detailed social analysis, discrete from the SIA, can avoid the risk of blanket government approvals conditions (HR1). The risk of governments taking this blanket approach increases during the assessment of nearby numerous projects at the same time (EXEC2, HR1, SC2 and SC3). CSR8 believed that some companies would include this additional information in internal company project tollgate processes, undertaken before obtaining investment approval (CSR8).

CSR8 highlighted that the timing of separate social analysis and engagement with communities was important since, when it occurs after the approvals phase, companies can be underprepared during project construction and early operations. CSR8 outlined how significant conflict with communities can result in the initial years of project implementation without this interconnected social understanding:

> *For our project in South-East Asia, while we had submitted social reports and local employment analysis and surveys to government post-approvals: we had not engaged in the detail with communities and stakeholders. Three months' later, mobilisation started for the project, which gave us two months to build an understanding of the project and employment opportunities with the local community and one year to repair the damage from a lack of engagement around social issues.*

The review of literature in Chapter Four and the feedback from interviewees confirms that SIAs have a regulatory influence but at present, at best, generally exert only a minor normative and cultural-cognitive influence on jobs decision-making. SIAs may, therefore, inform jobs decision-making in a general sense. Consistent with the feedback from respondents, the following regulative, normative and cultural-cognitive elements will combine with isomorphic pressure to influence the extent to which the SIA draws out the social context to inform project jobs decision-making (Figure 12).

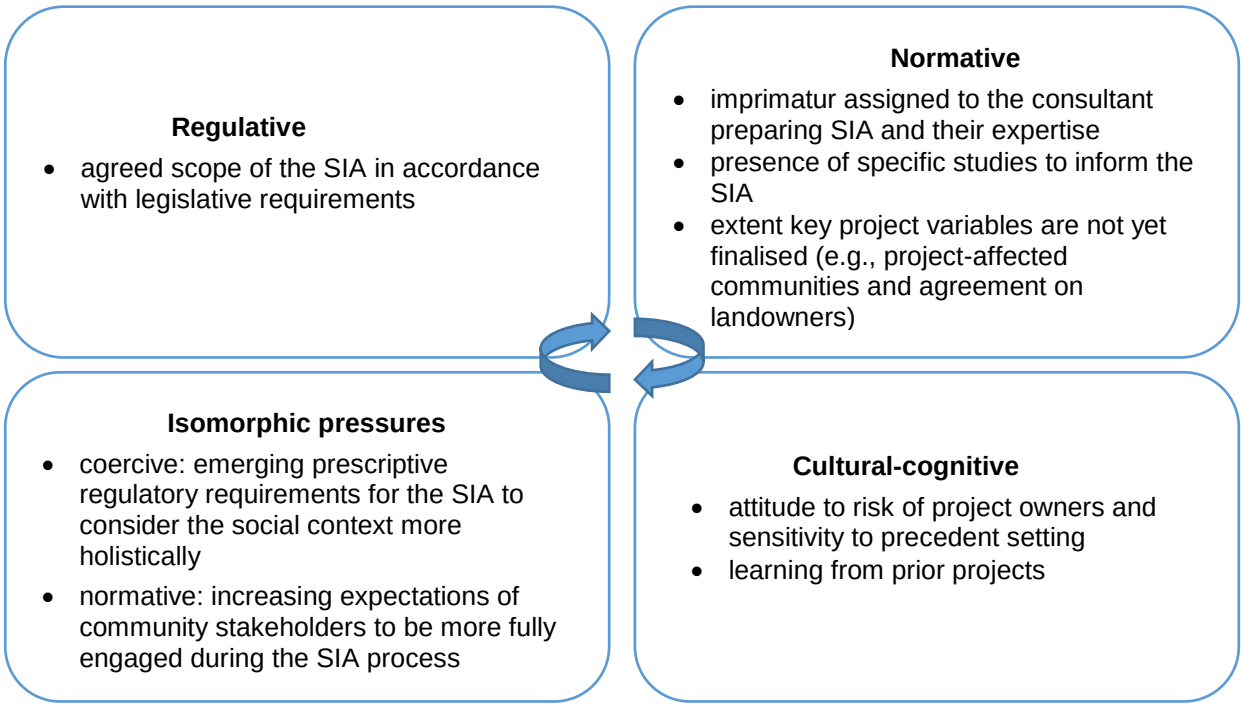


Figure 12 SIA influence using institutional theory markers

8.8 Implications for jobs decision-making in practice

The thematic analysis presented above provides evidence that greater up-front consideration by companies (and communities) of the social context connected to jobs decision-making can assist in enhancing the positive impacts and address or minimise adverse impacts of jobs decisions. The above section highlighted that the SIA is likely not the vehicle for this more nuanced social analysis of these themes. The progressive internal identification of the potential risks, opportunities and negative direct, indirect, induced and cumulative social impacts of jobs decisions during the design and approvals phase can support easier integration into project jobs decision-making. This approach can enable businesses to more easily grasp the multitude of drivers, constraints, levers and impacts of their jobs decisions specific to the project variables and location. Technical roles can then obtain a greater understanding of the connection between company decisions and social implications.

Earlier consideration of social impacts during the project design and approvals phases across the five themes presented in this chapter can assist companies to design the technical aspects of the workforce structure, infrastructure requirements and education and training to consider better the social, cultural, economic and political specifics of the location.

This approach supports optimising the benefits of access to local jobs for communities as well as contributing towards improved cost, productivity, and reputational and project value business objectives. It also enables organisations to engage governments strategically in encouraging broader project benefits, such as royalties and taxation, to be utilised to build the institutional and governance requirements to underpin jobs growth. The balancing and structuring of workforce models, contractor conditions, and local labour hire practices during these phases to manage areas of inequity can also assist companies to minimise conflict with local communities and the workforce.

The social analysis required to inform project jobs decision-making commencing from the design phase does not, however, need to be excessive. Too much data runs the risk of causing “analysis paralysis” (Williams and Samset 2010, p. 45). Qualitative information drawing on stakeholder expectations, the local social and cultural context, and experiences from other projects can progressively build in line with the development of the project to provide reliable and valid input (Williams and Samset 2010, p. 45). This data can assist the making of jobs decisions that consider the interrelatedness of social consequences. Quantitative data while relevant tends to become out-of-date faster than qualitative data (Williams and Samset 2010).

The analysis under the ‘business factors’ theme highlighted that companies must understand the impacts of their proposed workforce profile, conditions, and infrastructure on local communities. Local jobs commitments and programs should be scaled and developed with sensitivity to the project lifecycle. While not a major issue globally at the present time, the impact of the introduction of enhanced mechanisation and automation requires detailed assessment of the impact on the availability of unskilled jobs across all local community contexts. O2 recommended that companies should build technology into the project design from the start as part of the workforce strategy to provide more meaningful direct jobs in the project and indirect roles throughout the supply chain for local community members. This strategy can assist companies to increase their competitive advantage through technological expertise, potentially positioning the company well for future growth and decreasing resource nationalism risks (O2). This approach can also support government technology objectives within countries by seeking greater sophistication and innovation through knowledge transfer.

Accordingly, this theme emphasised the relevance of companies investigating the merits of trade-off approaches (such as local employability initiatives) to offset non-resident workforce structures and the increased use of technology to demonstrate project benefits for local communities. Another key learning is that an analysis of local and regional skills shortages and mismatches during the design and approvals phase would better equip companies to design workforce roles and training programs and to structure local participation commitments suitable to the social context from the outset. Businesses should also understand the historical and cultural connection between communities, workforces, and unions in jobs decision-making, which can contribute to workforce harmony.

Theme two, 'communities of interest', identified that the definition of what constitutes 'local' and reaching an agreement with communities and key stakeholders is essential for jobs decision-making purposes during the project design and approvals phases (CSR1, CSR6 and CSR7). Where there are local participation regulatory requirements, companies should aim to reach an agreement with communities and government on the definition of 'local' as early as possible in the project approvals phase. Once 'local' for jobs purposes is defined and community stakeholders and their interests identified, the company can strategically engage with local communities about opportunities and to manage expectations. The analysis emphasises that robust and appropriate community involvement in the project identification, design, monitoring, and evaluation phases, underpinned by an understanding of the cultural context, is critical to identifying local job opportunities (Banks et al. 2013, CSR4, SC1 and SC3).

The 'socio-economic considerations' theme summarised ways that the social context intersects with and influences project jobs decision-making and the importance of companies considering issues of inequity and inequality in employment approaches. Inequity and inequality is present in both developed and developing economy settings. Significant cultural differences and conflict can arise between different communities, tribes, and clans as well as employee classes and contractors regarding their real or perceived equitable access to jobs in developing economies and remote developed indigenous communities. The analysis identified the seven poverty traps that can be affected by or conversely impact on company jobs decision-making. An understanding of the impact of these poverty traps specific to the project location during the project approvals phase can

assist companies to structure equitable access to jobs opportunities and health and training programs suitable for local participation as well as to improve local workforce productivity.

The eligibility criteria for access to employment by communities of interest, the hiring practices of companies, and the local project infrastructure combine to influence the level of in-migration to local and regional communities in search of work. Greater up-front consideration of this connection during the project design phase in locations where this risk is highly likely or prevalent can assist companies in mitigating induced in-migration risks. Company labour policies can, therefore, be a lever for in-migration management. Examples include careful management of the use of local enterprises for labour hire to avoid nepotism, drawing workers from existing catchments, clear eligibility criteria and monitoring systems, and planning of employee and contractor point of hire approaches.

The analysis under this theme highlighted the positive contribution that projects can make to the management of labour-related human rights risks, especially in developing economies where formal labour conditions and regulations incorporating human rights considerations may be missing or poorly governed. The introduction of labour policies and workforce conditions that adhere to host country accords as a minimum can substantially improve community and regional human rights conditions. The interaction of the workforce and community also has the potential to create human rights risks for local communities, especially when a large proportion of workers are not from the local area but live in the local community. The community and workforce can interact in many ways, including as employees (local and expatriates), contract security forces, suppliers and through volunteering activities. The interaction of the security function with the community, in particular, requires careful ongoing monitoring in locations with high human rights security-related risk issues. Human Rights Watch recommends that companies should have in place monitoring programs for the workforce, a workforce code of conduct, an accessible and safe complaints process for community members and the workforce, and a whistle-blower hotline. The incorporation of a stronger emphasis on gender equality into operations and monitoring programs can also assist in providing a safer environment for the workforce and the relationship of the labour force to the community (Human Rights Watch 2014).

Other socio-economic considerations relate to housing, health, livelihoods, and gender. The provision of workforce accommodation in some communities may be a significant and

considerable cost in the project's business case but also a source of perceived inequity between employees, contractors, and community members. Housing and accommodation policies should be designed to take into consideration the social context as well as the risks of conflict connected to company approaches. The analysis reinforced that in developing economies health impact assessments are a valuable tool to assist companies in understanding the health and wellbeing aspects of the local community when planning workforce employment and health programs[19].

Companies should also assess the potential draw from other local industry sectors and the connection jobs decision-making has to livelihood and develop mitigation measures to address the issue. This recommendation is relevant across all project contexts. In developed economies, as an example, the resource sector can draw workers from the service and rural sectors, which can result in rapid wage inflationary pressures and the inability to attract local people to work in these sectors. In developing economies, while this is also a substantial issue, the impact on the rural sector can be chronic, having the potential to impact on the long-term food security of the local population, decreasing the resilience of the area post-resource sector closure.

In the development of gender mainstreaming policies and methods, the social context should play a significant role in determining appropriate actions (Macintyre 2011, p. 23). In all locations jobs decision-making should incorporate an appreciation of the social context and the intersection between the workforce and gender objectives from the outset[20]. The good practice guide for Rio Tinto on *Why Agreements Matter* by Ali et al. (2016) provides advice for practitioners on agreement making and includes guidance for the development of resource sector indigenous employment programs and commitments.

The awareness of these socio-economic considerations can assist businesses to develop or strengthen company socio-economic monitoring programs in host communities to support the management of conflict between locals and different tribes and clans in the workforce. This approach ensures that employing local people does not compromise business

[19] See the ICMM Good Practice Guide on Health Impact Assessment (2011a, pp. 16-17) for an overview of the health impact assessment process and general areas considered.
[20] Rio Tinto commissioned a Guide 'Why gender matters' (Kemp and Keenan 2010) which provides a good starting point for companies in the development of local gender mainstreaming approaches for their workforces.

productivity, and cultural, health and safety objectives while at the same time building sustained economic opportunities and goodwill with communities.

The ‘service delivery theme’ highlighted that companies should define the role they will take in social and education infrastructure provision to attract and retain a local workforce vis-a-vis government and then maintain consistency of approach. Another consideration is ensuring that company programs designed to address education and skills issues for the current and future local workforce are focusing on the causal linkages. Companies could also support education, skills, and training across the supply chain, which is in their best interest from a productivity and innovation perspective[21]. This activity does not have to occur during the early project design and approvals phases with companies having a greater appetite, as previously mentioned, to work at a regional level together with other businesses to collaborate and identify synergies during the operations phase (CSR3, EXEC2 and SC2).

In an ideal world, companies and governments would work together to optimise the benefits for communities, maximising existing royalties and taxes to sustain development in areas such as building the skills required to attain jobs (PD1). The ‘broad-based development theme’ identified that this approach requires companies to engage strategically with the government to identify and prioritise infrastructure requirements and obtain fair allocations of state funds for regions to support local jobs creation and related infrastructure (PD1). Companies should therefore be proactive in their discussion and negotiation with governments and communities on ways that the distribution of benefits can drive and sustain broad-based development and jobs growth at the regional and national level. Extra care should also be taken by companies in developing economy, conflict-prone and fragile states that lack in governance mechanisms. Formal agreements with government, combined with transparent reporting mechanisms can assist to hold government to account.

8.9 Conclusion

This chapter has identified potential intended and unintended positive and negative social impacts associated with jobs decision-making and the challenges related to managing these impacts across five interconnected themes. The chapter has highlighted that while local jobs

[21] The Supplier Development Program developed in partnership between BHP Billiton and Codelco in Chile is a good regional development, cluster and shared value example of fostering innovation in the supply chain. Smith, Pol Longo and Murray (2015) on the Shared Value Initiative website provide an overview of the program.

can present opportunities, negative social impacts can also be created or exacerbated by the decisions made in the rush by businesses to gain project approvals and by communities seeking to access jobs. Social drivers exist within the company, the local communities, and beyond. They occur at different scales, are in a state of flux, and are difficult to articulate and measure. Although somewhat nebulous and problematic to quantify, the unfolding interconnection of resource projects upon individuals, communities, and broad social groups, shapes how projects commence and the form that they take. The local workforce conditions and wider social impacts of jobs are a crucial dimension of how the project embeds in a country and how it progresses and is perceived by communities.

Interviewees highlighted in this chapter that while the SIA can inform jobs decision-making, it is unlikely to be the vehicle for the more nuanced social analysis that connects company employment decisions with these social themes. The chapter provided an overview of the types of social analysis that companies may find useful to inform jobs decision-making. The identification of positive and negative intended and unintended social consequences and the role of the SIA in drawing out these impacts as presented in this chapter addresses Project Task Seven. The next chapter connects this analysis to a developing economy case study of the PNG LNG Project.

9 PNG LNG Project: jobs decision-making case study

9.1 Introduction

This chapter presents a case study of the PNG LNG Project to explore the relevance of the themes contained in Chapter Eight in a real-world developing economy setting. The case study assesses the perceived and actual social issues and opportunities experienced by the project connected to jobs decision-making to address Project Task Eight.

- Project Task Eight: Use a 'live' project example, drawing on publicly available material, to further explore the social context and impacts associated with jobs decisions.

The case study starts with an introduction to the project, the PNG social context and the legislative environment and then uses the themes from Chapter Eight to frame the remainder of the chapter. A wide body of public domain material, spanning the approvals phase to early production informs the case study. The analysis also provides a useful assessment of the extent to which public documentation considered and connected these thematic social impacts to jobs decision-making. The review of the independent consultant and NGO reports enabled an evaluation of the actual and perceived social impacts experienced by local communities during the construction and early production phases. These sources also provide broader insights into how the project dealt with social issues related to jobs and the relevance of these themes in practice.

9.2 About the PNG LNG project

The PNG LNG project was the largest development in the history of the nation and one of the biggest natural gas projects in the world, and has a 30-year life. The EIS for the project was approved by the PNG Department of Environment and Conservation in 2009 (Nelson and Valikai 2014). ExxonMobil PNG Ltd (originally named EHL as referenced in the project documentation) is a subsidiary of ExxonMobil and, in co-venture with other parties, is the operator of the project. The project has delivered LNG production, processing facilities, pipelines and associated gas infrastructure developments from the Southern Highlands through to Caution Bay near Port Moresby in PNG. The upstream component of the infrastructure is in a very remote part of PNG where local communities rely on subsistence

agriculture (sago palm cultivation), hunting and gathering, and fishing for their livelihood. Downstream, there are four main villages with a strong emphasis on land ownership. The forecast workforce in the EIS was a peak construction workforce of 12,500 with an average permanent workforce of 850 (ExxonMobil 2009). The project obtained approvals in 2009, commenced construction in 2010 and operations in 2014. Figure 13 shows the project map.

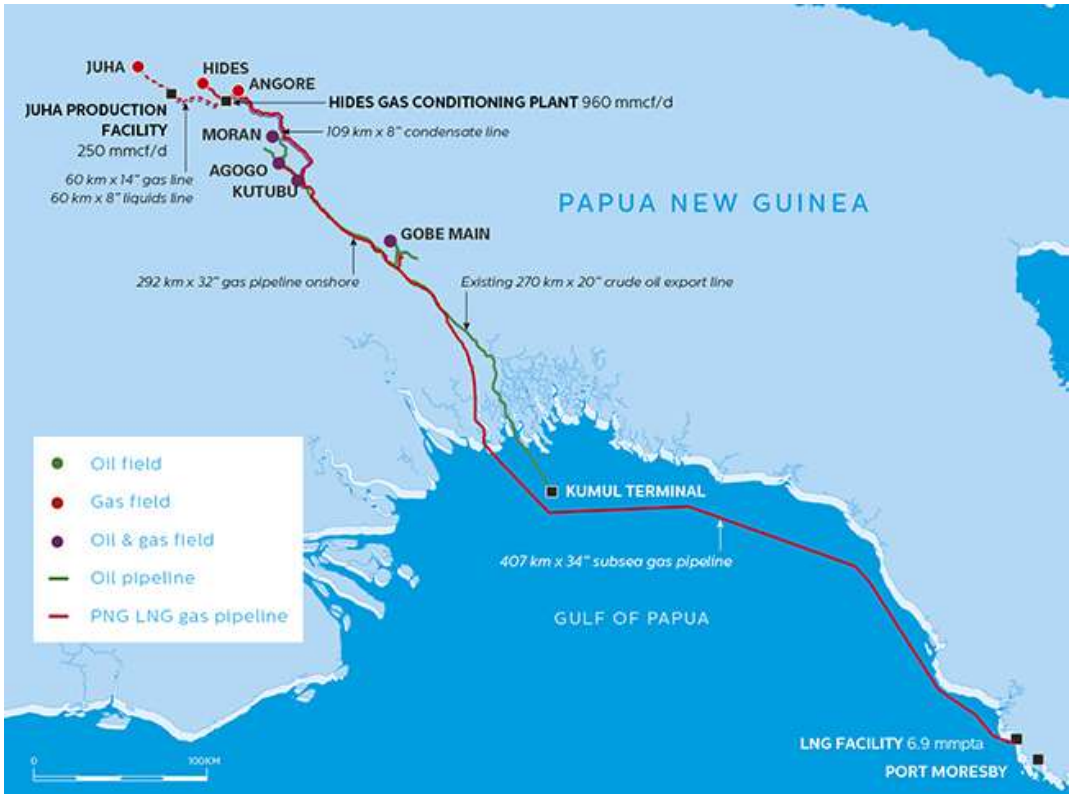


Figure 13 PNG LNG Project map, Oil Search (2016)

9.3 PNG social context

The PNG LNG Project progressed in a context where PNG has had trouble translating resource sector opportunities into sustainable and inclusive economic and social development for its citizens.

PNG is a country with a history of resource sector conflict and systemic social, economic, and cultural issues. These problems have impeded on the realisation of project economic and social development opportunities as well as the preservation and protection of the environment and cultural values of local landowning communities. Reports by the United

Nations Development Programme (UNDP) (2014)[22] and ADB (2012) outline the challenges that PNG faces in realising resource sector development opportunities. About 97 percent of PNG's land is under customary ownership, which presents a range of issues for resource project proponents regarding the assignment of project boundaries (often involving considerable dispute without formal title), determination of rightful landowners, and the negotiation of appropriate compensation and project benefits (ADB 2012, p. 87). Over time the regulatory landscape has evolved to provide certainty of process for developers but conflict continues in the identification and resolution of rightful landowners for some projects.

Conflict between landowners, communities, developers, and the government is a historical and ongoing issue that creates significant complexity and leads to considerable reputational and financial cost for companies over the project lifecycle. Resource companies have a legacy of mixed social, economic, and environmental performance across high-profile PNG cases such as the devastating environmental consequences of the BHP Ok Tedi Mine tailings dam failure and the civil conflict in Bougainville that resulted in the death of over 10,000 people (UNDP 2014, p. 2). Various projects have contributed to the chequered perception of and ongoing societal debate regarding the ability of the resource sector to contribute to longer-term sustained social and economic development (Franks 2015, p. 7).

The high probability for conflict is compounded by PNG having poor levels of human development, with a Human Development Index rating of 157 out of 187 countries (UNDP 2014, p. 3). Critical development constraints faced by PNG requiring government action in order to boost broad-based, sustained, and inclusive economic growth include:

- the volatility of the economy to resource revenue
- weak governance and institutions
- poor infrastructure and social services
- a shortage of skilled human capital
- limited education services
- poor access to health services (ADB 2012, p. 92).

[22] The UNDP (2014) report provides an overview of the history of resource development in PNG, and the recent policies being pursued to enhance the positive contribution that the resource sector can make to national development.

These problems are compounded by the fact that urbanisation rates are low in PNG, with communities still largely relying on agriculture and the subsistence economy, for its livelihood (ADB 2012, p. 14). The PNG LNG Project has developed within this complex environment.

9.4 PNG legislative context

The two most important pieces of legislation required to be satisfied to obtain project approvals for oil and gas projects in PNG are the Oil and Gas Act (1998) to secure the production licence and the Environment Act (2000) to obtain an environmental permit. Central to both Acts is the consideration of the potential social, economic, and environmental impacts of projects. Proponents start the formal government process by submitting an Environmental Inception Report (Department of Environment and Conservation 2004), which differentiates potential socio-economic impacts into Group A and B areas. Group A relates to adverse impacts on the biophysical environment caused directly by the project. The legislation identifies that Group B items are usually best managed by the responsible national, provincial and local governments (e.g., social structure, law and order, migration and population issues, inadequate infrastructure concerns, historical and cultural issues) (p. 3). The Oil and Gas Act also requires social mapping, surveys, and landowner identification and the submission of a social and economic impact statement as part of the EIS (which is satisfied through the SIA and Economic Impact Assessment contained within the EIS developed under the Environment Act).

A development forum is held under the Oil and Gas Act to consider the views of project stakeholders before the granting of a production licence. At the development forum, stakeholders (usually the government, landowners and the company) agree to the distribution of equity, royalties, infrastructure, and services grants to project area landowners. A Benefits Sharing Agreement captures the commitments made by the parties. The project also has obligations under the Employment of Non-Citizens Act (2007) and the Oil and Gas Act to prepare a National Content Plan considering PNG national content and participation.

The combined requirements of the Environment and Oil and Gas Acts have significant implications for the scope of the EIS (including the SIA). Group B items (such as in-migration, inadequate infrastructure, and social structure) under the Environment Act are identified in

the Guideline as usually best managed by the appropriate levels of government. A literal interpretation of these requirements for jobs decision-making can, therefore, see the SIA contain a limited assessment of the impact of the workforce profile and associated infrastructure on the social context. The National Content Plan post-SIA would likely include the project's commitments to local content and participation and workforce education and training, rather than the SIA. The analysis of Group B socio-economic impacts in the SIA associated with the workforce can also be minimal. The SIA can also include simple analysis of government service delivery enablers and infrastructure to support local and regional communities access jobs. Project benefits that include equity, royalties, grants and taxation incentives can also receive limited focus in the SIA, given that these items are identified under the Oil and Gas Act as agreed between the parties at the development forum.

The analysis of the SIA and EIS, therefore, needs to be undertaken within the context of the above-mentioned legislative requirements and the sequencing of the various activities.

9.5 Project cost

The PNG LNG Project was the most expensive and complex large-scale resource project in the history of PNG. The original cost estimate in the EIS was USD 10 billion, which increased to USD 15.7 billion in December 2011 and to USD 19 billion in November 2012. The 21 percent blowout in the budget for construction to completion resulted from USD 2.1 billion in currency movements, USD 1.2 billion to delays from work stoppages and issues accessing land during construction and drilling and USD 0.7 billion to costs associated with wet weather (World Bank 2013a). Dissatisfaction with access to local employment opportunities was a significant concern that contributed to community issues and work stoppages.

One of the likely real causes of community frustration, however, was the lack of landowner identification before the project commenced the construction phase, creating considerable uncertainty about the equitable distribution of benefits. This situation resulted in landowners and community members perceiving jobs as the main benefit from the project. This observation is evidenced by the ongoing dispute between landowning communities and the Government of PNG to obtain access to royalties and other project benefits. By the end of 2015, landowners were still to receive royalties which are held in trust by the PNG Government due to the failure to reach an agreement with communities on landowner criteria and which had created ongoing conflict with landowners (Elapa 2015; Fiji Times

2015). The company continues to maintain that the issue of the equitable distribution of benefits is a matter between the government and landowners. The timeline for the project (Figure 14) indicates that the project had a relatively condensed period between the attainment of financial approvals and the commencement of construction (approximately three months).

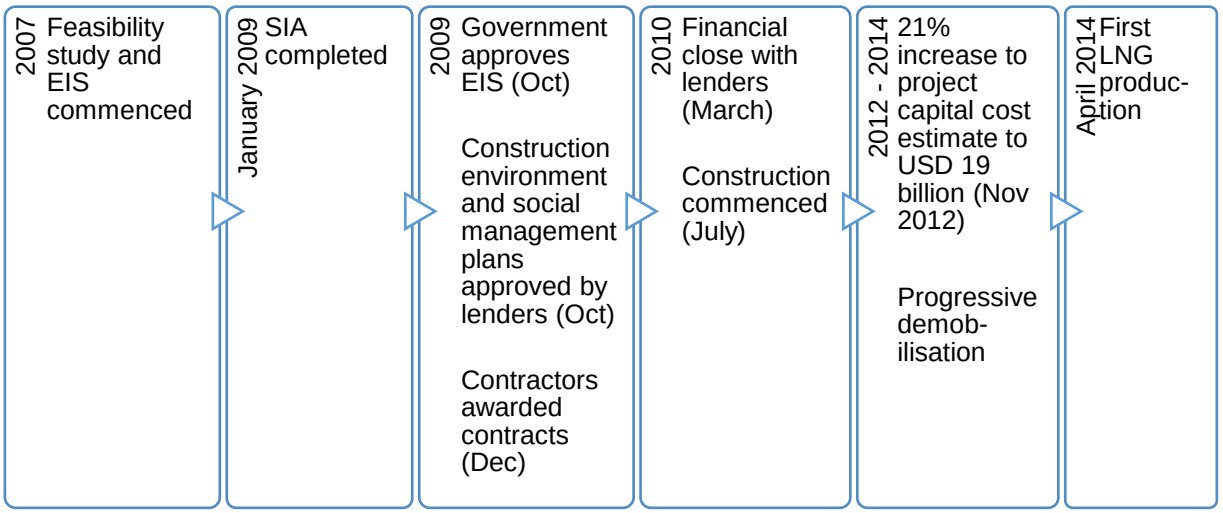


Figure 14 PNG LNG Project timeline (ExxonMobil 2016b)

9.6 Project time frame and access to jobs

The project employed a large workforce during the construction phase, reducing to a significantly smaller one during operations. A peak construction workforce of 12,500 full-time equivalents and an operational workforce of 1,380 (850 permanent employees and 530 contractors) were forecast to be employed by the project in the original EIS/SIA (Coffey 2009a, p. 15). Twenty percent of the workforce were proposed to be PNG nationals during construction and up to 80 percent in operations (Coffey 2009c, p. 16). The National Content Plan (EHL 2009) revised the construction target to 30 percent. The commitment of the project to training and workforce development saw the targets exceeded during the construction phase. The timeline of employment, the period of intense conflict about access to local jobs, and the previously mentioned blowout in project costs is depicted below in Figure 15.

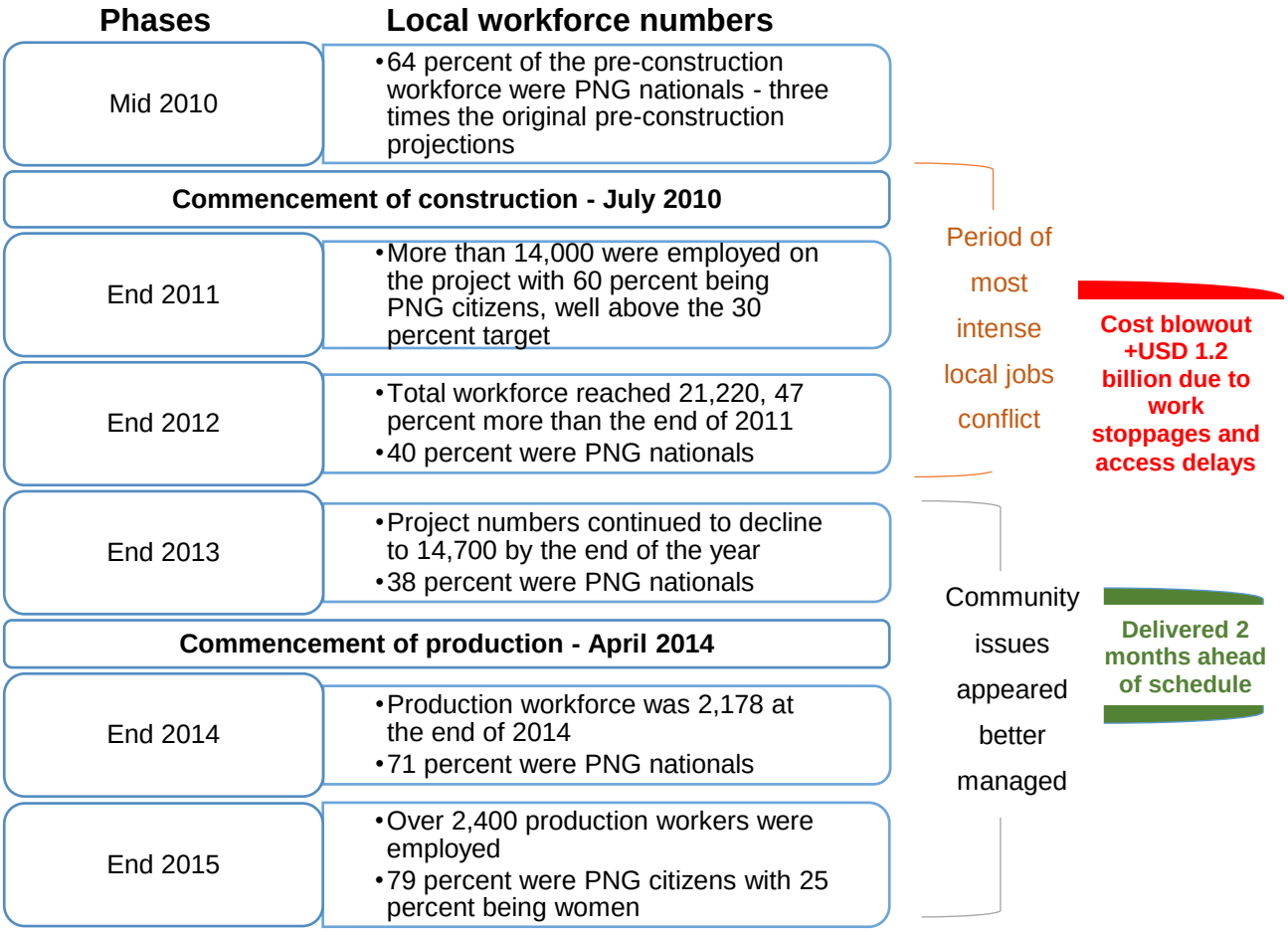


Figure 15 Workforce composition 2010-2015[23]

9.7 Project approvals phase documents: thematic social analysis

This section examines the SIA and other project-related documentation to assess the extent that the material (where relevant) draws out social issues and opportunities connected to jobs decision-making against the themes from Chapter Eight. The analysis focused on the themes of 'business factors, communities of interest, socio-economic considerations, service delivery enablers and broad-based development', but was also receptive to other themes and impacts emerging from the data.

The first theme assessed is 'business factors', which covers the workforce profile, conditions and infrastructure, technology, workforce localisation, project lifecycle, skills shortages and mismatches, and workforce harmony. The EIS and SIA, while not including information on

[23] The figures across the phases are drawn from the summary pages in ExxonMobil's PNG LNG Quarterly Environmental and Social Reports – Fourth Quarter (ExxonMobil 2011, 2012, 2013, 2014, 2015, pp. i-iii) with the exception of mid-2010 which is from the independent consultant's report (De Franchi et al. 2010b, p. 13). The transition to production occurred two months ahead of schedule (De Franchi et al. 2014c, p. 10).

the proposed composition of the labour force or skills sought, did incorporate a commitment to developing a National Content Plan outlining workforce and supplier development (Coffey 2009c, p. 16). The plan (2009), submitted 12 months after the completion of the EIS/SIA, committed to PNG nationals holding the majority of positions by 2016/17 (pp. 3-4). The plan outlined that the construction phase would use five EPCs and two major contractors, with each responsible for the attainment of the project's national content objectives and developing the capacity of Lancos to engage local workers (p. 8). A Lanco is a company

> *registered in PNG that is typically owned by the people of the same clan, or of clan origin, who use and/or have title to land in a specific geographic area. (EHL Ltd 2010b, p. ii)*

The use of Lancos was

> *designed to direct labor hire revenues to communities within the Project Impact Area, and to mitigate problems associated with the use of PNG citizen employees from one area or clan, in another clan's area. (EHL 2009, pp. 21-2)*

The Labor and Worker Conditions Management Plan (EHL 2010b) completed in November 2010 outlined contractor labour and recruitment practices. The onus was on subcontractors to ensure Lanco compliance with employment requirements in the plan. The SIA, National Content and Labor and Worker Conditions Management Plans did not include mitigation measures to manage adverse impacts of nepotism and elitism in hiring practices potentially associated with the use of Lancos. Certain project roles under the Employment of Non-Citizens Act 2007 and an associated Work Permit Guideline 2009 (both referenced in the National Content Plan) are required to be PNG citizens (Table 17 National content plan work permit guideline requirements (p 14)). The EIS documentation committed to increasing nationalisation of the workforce through education and training, with the National Content Plan containing the details (ExxonMobil 2009, p. 12).

Table 17 National content plan work permit guideline requirements (p 14)

Category	Free access	Advertise	PNG only
Managers	All others	Assistant Managers	
Professionals	All others	Human Resource Advisers/Staff	
Technicians and Trade Workers	All others	Welders, Fitters, Construction Trades, Electrotech and Communications	
Clerical and Admin Workers			All
Machinery Operators and Drivers	Special Crane Operators, Drillers		All others
Laborers	Riggers, Scaffolders, Steel Fixers		All others

The SIA did not mention social impacts associated with local employment and the project lifecycle, apart from a general recommendation for continuous monitoring and social baseline updates (Goldman 2008, p. 180). Nor was mention made of the potentially significant impact on the local workforce and community from the transition from the construction to the operational labour force (during the demobilisation phase) or a substantial decrease in workforce numbers. Neither did the National Content, Labor and Worker Conditions Management, Community Engagement Management (EHL 2010c), Company Stakeholder Engagement (EHL 2010a) or Community Impacts Management (EHL 2010d) Plans cover the demobilisation phase and proposed approach with local communities.

The SIA and EIS did not reference skills shortages and skills mismatches except to mention low levels of literacy and tertiary qualifications in the project area. The National Content Plan, however, covered in detail the shortage of skilled workers and the mitigation measures that the project would take to address education, skills, and training. At the end of the construction period, the project commenced development of a long-term national content strategy and program for the operations phase focused on workforce localisation. The strategy and program focused on the "early nationalisation of the Company's PNG workforce, consistent with the Gas Agreement" (EHL 2009, p. 11).

The EIS summarised workforce accommodation arrangements but did not identify the location, timing of construction, usage or decommissioning of the temporary and permanent

operation camps (Coffey 2009b, p. 22). The SIA noted that workforce accommodation due to the size, scale, and location of camps and housing and the temporary and permanent nature can present a significant cultural heritage impact with considerable scope for damage (Goldman 2008, p. 785). The potential social impacts of accommodation could not be assessed, however, given that the exact location and timing of housing was unclear at the time of compiling the SIA. The SIA acknowledged that recommendations regarding social impacts associated with project transport, camps, and road networks can be problematic without having sufficient detail to examine these elements (Goldman 2008, p. 564).

The second theme assessed is 'communities of interest' covering the social impacts associated with the identification of preferential employment zones for project-affected landowners and communities as well as consideration of community feedback and participation in jobs decision-making. The SIA provided a comprehensive anthropological overview of the villages and landowner groups within the project impact area and affected community catchments (Goldman 2008, pp. 120-210). The approach to the identification of specific landowners within these groups, however, was incomplete at the time of the SIA. Thus, the SIA did not differentiate between project impact affected communities and criteria for determining landowner and local employment eligibility. The SIA identified that the project-affected communities displayed ethnic pluralism with 15 different ethnic groups across 34,000 people (Goldman 2008, p. 56 and 105). The SIA did not cover the extent of the forecast changes to local communities from the workforce or, conversely, the impact on the cultural dynamics of the local workforce from the existence of potential issues with ethnic fractionalisation (Goldman 2008, p. 112).

Community members identified employment as a priority in EIS engagement activities, but the relative importance of this issue against others was not assessed in the SIA (Coffey 2009d). The SIA made recommendations on the criticality of mitigation measures to ensure an ongoing dialogue with stakeholders but did not specifically reference engagement with communities on access to jobs (Goldman 2008, pp. 1401-1402). Local communities expressed considerable concern during the SIA engagement process that they were unsure how they, as individuals and as a community, would benefit from the project (Goldman 2008, p. 1127).

The overall assessment against this theme is that the SIA presented an anthropological, historical overview of leadership via village, political, and landowner structures. Documentation did not, however, reference strategies to harness leadership towards social empowerment and change, or local employment, or associated involvement in mitigation measures.

The 'socio-economic considerations' theme contains a broad range of areas covering poverty (inequity and inequality), migration (inward and outward), human rights (labour), housing, health, livelihoods and vulnerable groups (women and indigenous). The SIA included a large volume of anthropological and cultural information on the project footprint but minimal assessment of social impacts directly connected to jobs decision-making.

A significant community concern and potential issue noted in the SIA for the Southern Highlands, and Caution Bay areas were increased mobility and migration during the construction phase. The SIA assessed higher rates of crime, prostitution, and STDs as likely risks from people migrating to the area in search of work (Coffey 2009c, p. 20). Negative social issues to do with squatters and *rascals* who are already endemic in Port Moresby and the ability of government to control illegal squatters was identified as a priority (ExxonMobil 2009, p. 26). ExxonMobil, however, as noted in the EIS, expected the Papa New Guinea government to take action and move squatters on (ExxonMobil 2009, p. 29), consistent with in-migration being a Group B impact category and therefore assigned as a government responsibility. The population around Hides in the highlands region of the project was also expected to grow by 10,000 with the lowland forecast to be much less, at about a few thousand (ExxonMobil 2009, p. 29).

The SIA noted the likely increase in STD rates (including HIV), tuberculosis, and associated health problems in and around communities as a result of planned road systems, enlarged camps, and scores of work personnel (Goldman 2008, p. 432). Health facilities were also identified as chronically under-resourced, poorly maintained, and lacking in basic medical supplies (Goldman 2008, p. 381). The SIA did not include considerations of the health and fitness of local communities from a workforce suitability perspective.

The SIA referred to subsistence farming and living being likely to remain the mainstay of local communities in the medium to longer term with the higher wages earned from the

project forecast to have less impact than in other developing economies due to the concept of giving. It acknowledged that local villagers often lack the resources, skills, and understanding to transition to a cash economy that can also cause the loss of traditional agricultural skills (Coffey 2009c, p. 23; Goldman 2008, p. 48). However, the SIA did not provide an assessment of the impact of introducing a cash economy to a subsistence lifestyle or include associated mitigation measures specific to the local communities.

The SIA referenced an assessment of gender issues for the project impact area. Gender inequity was evident in school enrolments and represented a major problem in that male literacy is approximately 1.5 times greater than that of females (Goldman 2008, pp. 465-468). The issue is complex and rooted in cultural tradition and differentiated support patterns. Women are expected "to marry and, with high male absenteeism, care for gardens, pigs and children" (Goldman 2008, p. 439). The lack of female role models in the workforce contributes to the issue (Goldman 2008, p. 440). The SIA recommended opportunities for proactive scholarship schemes targeted at women, which in turn could assist with women gaining employment on the project over time (Goldman 2008, p. 471).

The SIA also mentioned various human rights conventions, cultural heritage, and gender assessments in a general sense (Goldman 2008, pp. 1411-1412). It did not assess the interrelationship between human rights, the workforce, and the local community.

The Project Community Impacts Management Plan (EHL 2010d), submitted after the SIA/EIS, acknowledged the likelihood of impacts associated with grievances, managing social expectations, tribal/clan interactions, in-migration and population growth, employment, contractor interactions with locals, gender issues and vulnerable groups. Various plans were reflected as mitigation measures to address the impacts but were lacking in detail (e.g., Labor and Worker Conditions Management Plan, Community Support Strategy, Stakeholder Engagement Plan, and the Community Party Grievance Procedure).

Government services and infrastructure delivery as well as education, skills, and training form part of the 'service delivery enablers' theme. ExxonMobil took a strong line in the EIS and public documentation that "the state has the responsibility for managing the main social and economic issues related to the project" (ExxonMobil 2009, p. 35), including law and order, public health, and social challenges. Areas identified in which the company could

mitigate social impacts in the project area directly include “employment, contributing to health, education and agricultural initiatives” (ExxonMobil 2009, p. 35). The SIA made the pragmatic observation that it might no longer be feasible for companies to rely on government funding to support education and health infrastructure priorities (given the ongoing issues and run down nature of facilities and problems with access to appropriately trained staff) (Goldman 2008, p. 439). The Executive Summary identified that government service delivery was an ongoing challenge and that there was a need for change (ExxonMobil 2009, p. 35).

Chronic shortages of teachers and poor infrastructure facilities were identified in the SIA over the project impact areas (Goldman 2008, p. 452). The potential implications of these education-related issues, however, on access to local employment from the project was not explored. The SIA highlighted initiatives with substantial oil and gas producer funding which had advanced access to education. They included support for the upgrade and construction of school buildings, distance learning, vocational training sponsorship, and the establishment of the Oil Search Academy designed to build the capacity of locals to access jobs as well as training local employees (Coffey 2009c, p. 21).

The ‘broad-based development theme’ covers regional development and project linkages and royalties and taxes. The SIA included general mention of regional development terms, including the trickle-down effects of a project of this scale (Goldman 2008, p. 121) but did not contain an analysis of regional development opportunities. It acknowledged that employment would not provide a magic bullet. The development of other non-project dependent industry sectors to support the longer-term sustainability of the communities (such as subsistence farming and fishing) was identified as unrealistic in the medium term due to the low population density of the area and infrastructure access issues (Goldman 2008, pp. 1,420-1,427). The Economic Impact Assessment summarised the forecast multiplier impact of wages expenditure in the broader economy and included the assumption that workers would expend 50 percent of the local wages and 10 percent of the expatriate income in PNG (Coffey 2009c, p. 14).

It is unclear from the SIA whether any royalties or taxes were proposed to contribute to local and regional employment generation, such as supporting the enhancement of education and training facilities. As noted in the overview of the Environment and Oil and Gas Acts,

this was an item for negotiation at the development forum and would have been considered inappropriate to incorporate into the SIA and project approvals documentation.

9.7.1 Thematic social analysis presented in public documentation

The SIA and supporting public documentation met the statutory requirements. The PNG LNG Project SIA covered the local and regional, social, anthropological, and cultural heritage context for project-affected areas in detail but contained minimal connection of the social context to jobs decision-making across the themes. Many of the areas potentially requiring detailed social analysis to inform jobs decision-making are in Group B impact areas, such as in-migration, law and order, social structure and historical and cultural issues. The SIA and related public documentation, therefore, did not include a detailed analysis of impacts or assign mitigation in Group B areas, consistent with the regulatory guidance and the company's public position. From the available public documentation, it is unclear whether the project undertook a more detailed separate analysis of risks in this area during the project design and approvals phases.

9.8 Jobs decision-making social impacts in practice

This section now turns to identify the actual and perceived positive and negative employment-related social impacts experienced by communities during the construction and early production phases against the interconnected themes. The analysis draws from an extensive body of public domain material including independent consultant reports required by project financiers and NGO studies, and which incorporate a large number of interviews with local community members. The review of documentation remained open to the identification of other social impacts not previously identified in Chapter Eight.

9.8.1 Business factors theme: social impacts in practice

The majority of people interviewed and surveyed by the independent consultant and NGOs during construction believed that access to jobs, livelihood development, and training were the most positive impacts of the project (De Franchi et al. 2014a, p. 14; McIlraith et al. 2012, p. 43; Wielders 2011, p. 15). Rigorous training of the potential local labour force on safety, health, and the environment provided them with the necessary skills to work at a construction site (De Franchi, Johnson, Frugte, Barclay, Conzo, et al. 2011, p. 83).

While interviewees during the construction phase acknowledged the project's commitment to local employment, they also expressed significant concern about hiring practices, pending demobilisation, and a lack of workforce harmony. It was in the area of Lancos' local jobs hiring practices that many conflicts were experienced across villages during the early to mid-construction period between 2010 and 2012. A large number of complaints about nepotism in the hiring practices of Lancos, with leaders bringing in relatives for employment, had resulted in significant community and family conflict with clans or even families being broken up (McIlraith et al. 2012, p. 41; Wielders 2011, p. 16). This finding is consistent with experience across other projects (see Chapter Eight). Lancos also originally sourced a significant number of non-Papuan workers which created initial community conflict but, mid-construction, staff localisation efforts improved (De Franchi, Johnson, et al. 2012b, p. 16).

A major issue in the first two years of construction was the perceived lack of transparency about jobs opportunities across the proponent, contractors, and Lancos, which led to community speculation that locals were missing out (De Franchi, Johnson, Frugte, Barclay, Conzo, et al. 2011, p. 83). The interviewees who were in preferential employment zones but not employed by the project, expressed strong resentment about their inability to get work (McIlraith et al. 2012, p. 41). Local communities considered that the contractors tended to hire the same people from the villages for jobs, which was creating considerable anger amongst young men not engaged for work (De Franchi et al. 2010b, p. 71). The independent consultant recommended that the project, contractors, and Lancos spread jobs as much as possible to avoid the perception of inequity and conflict among clans (De Franchi et al. 2010b, p. 71). There was also concern that outside workers were displacing local ones. The consultant recommended that the project publish its employment data (De Franchi et al. 2010b, p. 71), which occurred in public reports from 2011 onwards and provided greater understanding and certainty for locals.

Parity between Lanco employment conditions and EPC workers was also a significant concern for Lanco employees who were extremely frustrated at the lack of contracts and terms (De Franchi et al. 2010a, p. 67; McIlraith et al. 2012, p. 41; Wielders 2011, p. 15). This finding is consistent with experiences documented in Chapter Eight. A large number of gender-related employment issues were raised by female workers and local communities during the early construction phase. Local women felt particularly underrepresented in progressing job opportunities and had significant concerns that Lancos were dismissing their

employment and wages grievances (De Franchi, Johnson, Conzo, et al. 2011). A significant contributing factor was the inexperience of Lancos in dealing with HR matters and uniform application of grievance mechanisms. This situation led to ongoing systemic complaints of a lack of governance and representation of local workers by Lancos as well as issues with receiving payments (De Franchi, Johnson, Frugte, Barclay, Conzo, et al. 2011, p. 80). Numerous labour incidents, strikes, and works stoppages ensued from the situation (Wielders 2011, p. 15).

The independent consultant recommended that the project's monitoring of its main EPC Contractors and their subcontractors include a more accurate demonstration of conformance with the main international labour and human rights standards (consistent with the human rights sub-theme in the socio-economic consideration theme). The independent consultant reports referenced conformance with the ILO Core Labour Standards, other requirements reflected in IFC Performance Standard 2 and those related to gender and women as examples (De Franchi, Johnson, Frugte, Barclay, Conzo, et al. 2011, p. 80).

The early to mid-construction phase was a period of high workplace relations conflict. The cultural characteristics and a first-time exposure of the local workforce to paid employment were significant causes (De Franchi, Johnson, Frugte, Barclay, Johnson, et al. 2011, p. 9). A contributing factor was the deficit of experienced HR personnel in place within the project with responsibility for workforce and contractor management issues, as well as poor integration with the community relations and security functions. The lack of stable management and a fully resourced lands and community affairs team during the early and middle construction phase was identified as posing a considerable risk to the project and the relationship with communities (De Franchi, Johnson, Frugte, Barclay, Conzo, et al. 2011, p. 8).

By 2011, the HR management staff responsible for operations had started to be mobilised and assumed greater responsibility for workforce and contractor management issues (De Franchi, Johnson, Frugte, Barclay, Johnson, et al. 2011, p. 9). Soon after, in 2012, the community affairs team was also more stable with the main managerial roles and 50 staff in place (De Franchi, Johnson, et al. 2012b, p. 10). At this point, the project had assessed that effective and adequate community affairs work were key to managing conflict inside and outside the fence (p. 15).

By the end of 2012, the project had in place a centralised strategy to manage industrial relations disputes and work stoppages and to control the workplace issues. Staff now recognised the connection between local communities, cultural identity, and the minimisation of workplace issues in reducing workplace incidents (De Franchi, Johnson, et al. 2012a, p. 70). In a live radio interview in February 2012, the managing director of Esso Highlands, Peter Graham, admitted that the company had not communicated enough with landowners on benefits and opportunities (including employment) in the past. The project was now putting in a major effort to improve local communications on the ground through daily engagement, which was minimising speculation and landowner uncertainty. The formalisation of the grievance process had also resulted in landowners and community members knowing that officials would get back to them with a timely answer (Garrett 2012).

The evolution of Lanco local employment practices, combined with the project's strengthened community engagement practices, delivered positive outcomes for communities and the project from mid-2012 onwards. An example is that Lancos and EPC providers began to form transparent partnerships to align employment approaches along the onshore pipeline. This method streamlined the identification of the villages and clans eligible for jobs. The Lanco and EPCs also consistently undertook community awareness raising in the main communities utilising the village councils for the selection of candidates. All stakeholders (EPC, Lancos, community, and the Proponent) saw this measure as instrumental in assisting the EPC to navigate cultural complexities (De Franchi, Johnson, et al. 2012a, p. 72).

Clan leaders began to be more aware of the consequences of work stoppages and community actions which contributed to lessening jobs conflict significantly. An example is an EPC upstream joint venture partner receiving a letter from major clan leaders in the area, apologising for the level of violence and unrest over the last two years (De Franchi, Johnson, et al. 2012a, p. 73).

The proponent also implemented improved and coordinated policies and procedures regarding communities and the workforce which had resulted in a significant decrease in workplace incidents (De Franchi, Johnson, et al. 2012a, p. 73). Examples include the introduction of supervisor training, a workers' code of conduct, grievance, and disciplinary procedures, and advanced cultural awareness training (consistent with the

recommendations made in Chapter Eight). A community grievance mechanism was developed with access to employment continuing to be one of the most raised concerns.

From early 2012 the project started to decrease its demand for unskilled workers (the roles where most of the local and PNG nationals were employed) with unskilled workers beginning to be laid off (De Franchi, Johnson, et al. 2012a, p. 14). The decrease was in line with changing project construction requirements for more specialised skills (De Franchi, Johnson, et al. 2012b, p. 92).

The project and the major EPC providers developed integrated demobilisation plans that contained strong consideration of community impacts. The independent consultant assessed that demobilisation worked well with frequent engagement with communities using a variety of methods including drama, visual tools, village committees, community/village liaison officers, and warden committees working together to engage with demobilisation (De Franchi et al. 2013b, p. 15). The project minimised impacts on local workers by staggering demobilisation by area starting with workers from communities that were furthest in proximity from the project areas as well as reassignment to other roles, the provision of workforce databases to other companies and career planning advice for affected workers (De Franchi et al. 2013b, p. 61).

The ongoing monitoring of demobilisation on communities demonstrated that the loss of employment had not exacerbated violence and conflict or security concerns in communities, even towards women, as a result of their empowerment through access to work (De Franchi et al. 2013a, p. 49, 2013b, p. 13). The main social impacts of the demobilisation phase on communities related to a decrease in income from employment and expenditures in those communities from external workers (De Franchi et al. 2014b, p. 15). EPCs were implementing strategies to reduce these impacts, while the production community development team were assessing suitable community projects in areas with large numbers of returning workers.

9.8.2 Communities of interest: social impacts in practice

While local people recognised jobs as one of the main project benefits, public documentation from the approvals and construction phases indicates that the proponents did not engage in detail with communities on job opportunities and issues during the project approvals and

early construction phases. The project appeared late to engage with some host communities on job opportunities and recruitment processes, which caused considerable tension (as well as a high probability of misinformation) for local people. The independent consultant's May 2010 report raised concerns that consultation on local employment opportunities and associated issues still had not occurred with some project-affected communities like those near the Komo Airstrip (De Franchi et al. 2010a, p. 12). Some communities were still unsure in late 2011, more than halfway through construction of company hiring practices. Large volumes of complaints connected to access to employment and a lack of consultation throughout 2010 and 2011 compounded law and order issues:

> *A group of locals forced their way into an EPC bus sent to T--- village to pick up Village-Based Recruitment reps (VBR) for a meeting to discuss employment distribution amongst each clan/community. The group forcefully asked the driver to take them to Camp Y--- so that they could be employed. The bus load of locals fronted up at Camp Y--- and waited for employment. (De Franchi, Johnson, Frugte, Barclay, Johnson, et al. 2011, p. 94)*

The independent consultant recommended in 2011 that the project establish village representative committees to improve communication among the parties with employment included as a regular item (De Franchi, Johnson, Frugte, Barclay, Conzo, et al. 2011, p. 76). Community members interviewed and surveyed during the construction period noted that increased local employment and certainty by communities on the process to access jobs can significantly contribute to reducing conflict (McIlraith et al. 2012, p. 52).

Midway through 2012 and into 2013, the project experienced an improvement in peace and order. Strong consultation and engagement between the project team and communities (once the HR, community and security functions were working in alignment) likely led to the situation as examined in the business factors section. The presence of project security and local people using their income from work and compensation payments to pay debts reinforced the improving harmony (De Franchi et al. 2013a, p. 14).

9.8.3 Socio-economic considerations: social impacts in practice

Local communities experienced a significant number of real and perceived socio-economic impacts during the construction and early production phases reinforcing the requirement for ongoing engagement and social baseline monitoring throughout project implementation.

Positive impacts included direct and contractor employment with the project as well as through livelihood initiatives and health, hygiene, and nutrition programs. The proactive approach by the project in these areas provided much-needed jobs and income for local men and women. Interviewees and the independent consultant believed that the project's community health program delivered rapid improvements in health for the workforce and communities, being one of the most comprehensive undertaken for a development and that would likely leave a positive legacy (De Franchi, Barclay, et al. 2012, p. 9). Community members said the free pre-employment medical examinations for local workers had assisted in identifying "sickness on the inside" (Wielders 2011, p. 15). As recently as May 2016, IPIECA showcased the health program of the project as an example of industry best practice in its Health Impact Assessment Guide (ExxonMobil 2016a).

At the same time as communities were experiencing jobs benefits, 50 percent of community members surveyed in 2011 assessed their ongoing concerns about access to employment opportunities and the associated negative impacts as very major to major (McIlraith et al. 2012, p. 43). Many raised significant concerns about the impact of cash windfalls (such as through employment) on family and community structures. One significant issue was that some men were taking many wives, and that bride price had increased in line with the growth in wages, making it difficult for those not in the industry to obtain a bride (Fletcher and Webb 2012, p. 55; McIlraith et al. 2012, p. 47). No programs appeared available at the time of the report to assist workers in transitioning to a cash economy; for example, on the practices of saving, investing, and budgeting (McIlraith et al. 2012, p. 47).

Some comments, particularly by women, were also expressed that young men working for the project were using their wages to get drunk every Friday, Saturday and Sunday rather than saving for the future (Wielders 2011, p. 15). The women saw this situation as a disconnection from the cultural and spiritual unity (i.e. Church on Sundays) of the community and eroding social cohesion, which in turn can increase violence against women and girls. The independent consultant agreed that "the main causes of domestic violence are rivalry associated with polygamy, adultery and management of money within families, with alcohol a major contributing factor" (De Franchi, Johnson, et al. 2012b, p. 104).

In-migration was another issue upon which local communities expressed considerable concern, but it was not until 2013 that the project commenced development of a systematic

tool for monitoring in-migration (De Franchi et al. 2013a, p. 14). By mid-2013, the tool was embedded in company practice with hot spots identified and receiving particular attention (De Franchi et al. 2013b, p. 13). A new definition of in-migration that included who moved into project areas even for a short time, as well as persons who came as a result of wantok influence, underpinned the program. By 2014, the intense level of in-migration monitoring was found to have served its purpose, and a recommendation made for its suspension (De Franchi et al. 2014a, p. 14). The heavy emphasis by the project on recruitment and hiring practices which had a positive effect on minimising in-migration were noted, including that the project had not contributed to induced in-migration as originally forecast (De Franchi et al. 2014c, p. 14).

Communities were also concerned during the construction phase about the movement of people away from traditional occupations to an over-reliance on formal employment. More and more, communities believed that traditional agricultural practices would be lost especially given that post-construction there would be limited jobs available (McIlraith et al. 2012, p. 65). Resettled local community members remained focused on Lanco employment and business opportunities rather than livelihood garden development. Demobilisation of workforce opportunities from 2012/2013 onwards was identified as necessitating more focus on livelihood and garden activity (De Franchi, Johnson, Frugte, Barclay, Conzo, et al. 2011, p. 12).

Other interviewees during this phase considered that the project was a drain on the public service and other industry sectors (Fletcher and Webb 2012, p. 36). An example provided by a village was the absorbing of teachers by the project which resulted in the closure of the school (Wielders 2011, p. 16). This situation was also perceived to have occurred with police officers resulting in law and order not being properly implemented across local communities (Wielders 2011, p. 16).

The project put in place a range of commendable gender initiatives, with the November 2011 independent report recommending a stronger focus on violence towards women in employment. In the communities, women faced domestic violence for being employed by the project and also pressure to hand their earnings to the male partner or counterpart in the community (De Franchi, Johnson, Frugte, Barclay, Johnson, et al. 2011, p. 17). “Literally they said: the moment a woman passes the camp gate, her wages become the possession

of her husband and other male clan members" (De Franchi, Johnson, Frugte, Barclay, Conzo, et al. 2011, p. 86).

9.8.4 Service delivery and broad-based development: social impacts in practice

ExxonMobil has consistently implemented strong health and education initiatives connected to the local workforce and host communities as outlined in the SIA analysis section above.

Regarding broad-based development, the NGO reports incorporated generalised commentary. The Community Good Report summarised that employment had a trickle-down effect on communities and regions, with many thousands of people benefiting from wages during the construction phase. It recommended that it was critical to lever comparative advantage for the future in other industry sectors from the project (McIlraith et al. 2012, p. 65). The report concluded that the benefits of employment can decrease community conflict if well managed and create greater equality through this trickle-down effect than other benefits streams (such as royalties for landowners). Interviewees recommended that the project should provide training in trades and broader areas linked to the main industry sectors (such as agriculture) to enable local communities to obtain future employment (Wielders 2011, p. 15).

9.9 Conclusion: jobs decision-making practice learnings

The PNG LNG Project provides valuable learnings for large-scale project jobs decision-making as summarised in this section. The case study demonstrates the practical usefulness and relevance of the social themes from Chapter Eight to the PNG LNG Project context, which may inform jobs planning in similar contexts. The views of the interviewees in Chapter Eight from across a range of project contexts that the SIA is not the vehicle for this more nuanced social analysis required to inform jobs decision-making is also reinforced in this example. The case study highlights community perceptions and the actual social issues and opportunities experienced during the project construction and early production phases. The problems suffered by the project and social impacts and conflict experienced by the communities during the construction and production phases provides a marker to indicate that the company had not analysed these aspects in detail or developed mitigation measures before the commencement of the project. This is despite the project location having a history of resource sector-related conflict and lacking in many of the pre-conditions required for development to mitigate against resource curse risks (refer Chapter Two).

A pragmatic consideration, therefore, for PNG that must be reinforced up-front in this summary is the systemic and ongoing issues that the nation experiences in translating resource sector development into inclusive and sustained opportunities for its citizens. The PNG LNG Project entered a country where the technical, environmental, social, cultural and economic risks of the project were high. In developing the project, the proponent encountered the systemic governance, planning and infrastructure shortcomings of the location as well as the inherent social, cultural and landowner customary rights issues experienced in the location. The ongoing dispute with communities on landowner criteria is an example that even today has resulted in royalties being kept in Trust rather than distributed to the rightful landowners. Given these legacy issues, the project appears to have taken a hard line on the role of the project versus government for the management and mitigation of Group B impact areas (in the SIA) as well for the provision of infrastructure and services during the project approvals phase (expanded below). This position is understandable from a company technical perspective attempting to mitigate political and community expectations, and cost creep. However, it is possibly counter intuitive to what the development and political science literature recommends in a conflict-prone location where companies may by necessity need to take a more development-oriented role (see Chapter Two, particularly Dobbs et. al (2013), Ward (2009) and Valente and Crane (2010).

Without a doubt, the project deserves recognition for its strong commitment to jobs for local landowners, communities, and PNG citizens as well as the transparency demonstrated by making public the independent consultant reports and employment data. The project implemented a well-intentioned technical approach to employing locally, enabling localisation targets to be exceeded during the construction phase. Community members recognised and appreciated project employment, livelihood and training opportunities, and the workforce and community health programs. The project, therefore, did the technical aspects of jobs decision-making well, through the development of the workforce profile, roles suitable for locals, and health and training programs that provided the maximum likelihood of locals attaining work.

The project, however, encountered many social issues that, while not detracting from local employment endeavours, did contribute to a substantial amount of conflict between the project, EPCs, Lancos, and communities. Local communities also experienced a significant number of real and perceived negative social impacts connected to project jobs decisions.

Some of these impacts were likely avoidable, able to be mitigated or decreased significantly through closer alignment and engagement on jobs decision-making during the project design and approvals phases between the technical and social project roles as well as with local communities. Other matters likely required stronger ongoing community engagement to address perceptions, expectations and to recognise community concerns, especially given that this was the first large-scale project experience for these local communities.

The examination of the business factors theme confirms that the SIA did not analyse in detail how the social context would impact on and be impacted by the workforce profile (and use of Lancos), conditions, accommodation, and workforce harmony. The social issues experienced connected to this theme indicate that the company was underprepared when it came to pre-empting and managing the social consequences during the first three years of construction. The most notable example is the use of Lancos. In this situation, the project elected to use Lancos for the identification and hire of locals but did not put in place governance and industrial relations structures to manage the interface with EPCs and local communities until mid-construction. During the early construction phase, the project then attracted considerable and also foreseeable community and industrial relations issues. By the time of demobilisation, however, the project had learnt from the experience, and taken on board recommendations of the independent consultant and feedback from the community and implemented what appeared to be a relatively seamless process. The examples in Chapter Five of changing workforce optimisation practices and the community impacts experienced associated with these practices in Chapter Eight reinforce the relevance of the business factors theme across all project contexts. The implementation of advanced technology and the removal of low skilled roles is an area where the impacts in developing economies and developed indigenous communities and government responses will likely converge.

The analysis of the communities of interest theme indicates that the company was late to engage with local communities on job opportunities during the development of the SIA and in the first few years of construction. This lack of engagement led to considerable conflict during those early years, with host communities and local workforces unsure of company HR processes and employment opportunities. When the project began engaging in a more systematic way with community stakeholders and workers, towards the end of construction, conflict decreased markedly.

The project experienced ongoing issues associated with the social and economic considerations of jobs decision-making, most notably related to equality of access to work, concerns of in-migration, gender and the connection to livelihoods, issues related to Group B impacts. From the evidence presented in public documentation, it appears that the project demonstrated a lack of strategic foresight in pre-empting the likelihood and extent of the consequences of these issues on the project during the early to mid-construction phase. Communities consistently raised concerns about areas of perceived social implications which escalated into conflict during this phase. Consistent stakeholder engagement before and during these project phases on the social impacts associated with access to jobs could have substantially decreased the level of conflict generated by community fears of the unknown and perceptions of missing out. The project would have benefited from proactive mitigation measures addressing the foreseeable social impacts experienced by communities in the transition of local communities to a cash economy. The case study reinforces the importance of this theme for third world, developing economy locations that are transitioning from a subsistence to cash economy. Examples in Chapter Eight, however, also demonstrate that indigenous communities in developed economies with limited exposure to resource projects may require the same level of emphasis on the components under this theme as developing economies. First world economies also experience issues both accessing job opportunities and addressing related social impacts. However, communities in these countries are generally coming from a higher level of baseline socio-economic development.

Under the service delivery enabler theme, the project held a consistent position that the PNG government was responsible for services and infrastructure delivery in traditional government areas. Training, skills development and education-related facilities, as well as health, were areas where the project took a proactive and leadership approach given the importance of these areas for the technical process of jobs decision-making.

From the public documentation, it is unclear the extent to which the project was proactively supporting broad-based development in other industry sectors through project linkages during the construction and now early operations phase. From a strategic CSR perspective, a more development-oriented emphasis on supporting the development of job opportunities in other industry sectors for landowning communities could have decreased the conflict

directed towards the company as a result of employment with the project being the primary perceived benefit stream.

Given the high probability of social conflict in a PNG context, it is no surprise that community concerns were greatest during the early to mid-construction phase. This phase coincided with the ramp up of employment opportunities, and before landowners received royalties from the production phase (the PNG Government currently holds royalties in Trust with Landowner identification unresolved). During this period of most intense conflict, however, the independent consultant reports indicate that the project did not have in place an embedded fully functioning community affairs team, engagement or grievances mechanisms with potential project-affected communities. This situation meant that the community affairs team was not integrated with the project technical jobs decision-making or security functions to manage and advise on the interface with local communities during the periods of most intense conflict. The substantial recruitment of experienced community affairs staff and the strengthened relationship with the technical functions during 2012, however, contributed to community issues appearing to be well managed (as evidenced by the grievance close out rates)[24].

The above summary confirms the relevance of the themes from Chapter Eight for the PNG LNG project context as well as the range of likely social issues and opportunities that projects may experience in similar conflict-prone developing economy environments. The case study highlights the importance of projects giving proactive and early up-front consideration to the social context in jobs decision-making during the design and approvals phases to more effectively pre-empt and manage issues as they arise during project implementation. Genuine and ongoing engagement with locals on job opportunities and issues is another critical element to allow responsiveness to community feedback and concerns. Chapters Two and Eight reinforced the importance of early and ongoing community engagement across a multitude of country and project location contexts. Notable examples, demonstrating a clash of expectations, community concerns and conflict are Rio Tinto's Richards Bay Mine in South Africa (Chapter Two), the community and workforce overlap in the Bowen Basin, Australia (Chapter Eight) and landowner aspirations in a PNG context.

[24] These comments are not a criticism of the community affairs team in place at the time. Without knowing the full range of issues and internal relationships and responsibilities, an assessment cannot be made of the effectiveness of the team at that time or of the issues that were within and outside of their control.

The analysis reinforces the importance of projects progressively implementing a change management process with host communities to support them to self-empower to take up job opportunities and to also better manage negative social impacts. This recommendation is relevant to both developed and developing economy contexts but particularly locations without a strong history of resource projects. In this setting, local communites can feel especially uncertain about how to access project benefits, and the extent and likelihood of potential social impacts. Given the complexities and uncertainties inherent in developing large-scale projects, and company nervousness during the project development phase (as discussed in Chapter Eight), the case study reinforces the recommendations of interviewees that the social analysis required to inform jobs decision-making should be kept separate from the SIA. Keeping this material separate will provide maximum potential for companies to give fuller consideration to the social context in jobs decision-making.

The concluding chapter now draws together the learning from the literature, interviewees and this case study to answer the research question and to illustrate what *Towards best practice: fuller consideration of the social context in jobs decision-making* could look like in practice.

10 Conclusion: towards best practice jobs decision-making

10.1 Introduction

Access to quality jobs for youth, the poor, and women across developing and indigenous communities in developed economies is one of the significant sustainability policy challenges of the twenty-first century. The resources sector may not be a large employer compared to other industries, but in remote locations and resource regions, across developed and developing economies, it is likely to be one of the most significant employers if not the most significant. The sector, therefore, has an active role to play through the provision of direct, indirect, and induced jobs. Jobs decisions, however, can also create or contribute to unintended social consequences as outlined in Chapter Eight and explored further with the practical PNG LNG Project example in Chapter Nine.

In this concluding chapter, I answer the research question and summarise the main conclusions of the study. The previous chapters completed a number of project tasks, grounding the research problem in the perspectives, observations, experiences and beliefs of practitioners, informed by literature, and theoretical precepts. This approach enabled the critical analysis of the 'what, why and how' of the research problem to provide the answer to the research question in this chapter. The answer emphasises both a socially valuable and commercially viable outcome. This chapter also draws out the implications for corporate practice and identifies the significant sustainability contribution of the research. I conclude the analysis by presenting recommendations for future studies.

10.2 Key findings and theoretical contributions

The literature reviewed in Chapter Three identified that the institutionalisation of CSR in company practice is a small but growing area of scholarly research, mostly focused on the assessment of macro pressure to adopt CSR. There is a dearth of institutional research, however, on the CSR challenges facing the resource sector and how companies consider and reconcile economic and social imperatives in practice over the macro, meso, and micro organisational levels. This thesis addressed the research gap for jobs decision-making using institutional theory.

The following discussion presents a series of propositions, aligned with the study's sub-questions followed by an answer to the overarching research question. The propositions were developed using abductive reasoning, combining the analysis of interviewee responses and literature with theoretical insights from institutional theory and the concepts of CSR, shared value and social licence to operate. This approach is consistent with the pragmatism paradigm and application of a grounded theory methodology.

Propositions one to five (see Table 18 below) relate to how regulative, normative, and cognitive elements[25] are weighted, traded off, and ultimately influence consideration of the social context in jobs decision-making. Proposition six (Table 19 below) focuses on why companies should give fuller consideration to the social context. Propositions seven and eight (Table 20 below) contain recommendations to reconfigure internal processes by strengthening nested cultural cognitive, regulative, and normative elements. A practical framework, for use by practitioners, connects how companies plan for and make jobs decisions during the project design and approvals phase with shared value, CSR, and attaining a social licence to operate (Table 21 below). At this point, the 'what, why and how' components of the research question are addressed and the answer to the research question, the thesis is able to be stated in proposition nine (Table 22 below).

10.2.1 Key drivers for jobs decision-making

This section addresses the first research sub-question.

- What influence does the social context exert on jobs decision-making compared to other drivers, and how has this changed over time?

In Chapter Six, the analysis of interviewee responses identified the drivers of jobs decision-making. While the weightings applied to the drivers are project and social context specific, the analysis of interviewee responses in Chapter Six and the literature provided sufficient evidence to demonstrate a consistent pattern.

[25] The institutional elements are: regulative, e.g., rules, regulations, policies, monitoring and sanctioning activities; normative, e.g., embedded, prescriptive and obligatory work norms, habits and ethics; and cultural cognitive, e.g., shared values, beliefs, assumptions, understanding, and framing to obtain meaning.

The main internal driver is the progression of a competitive project business case. The analysis highlighted that the workforce strategy and profile for large-scale resource extraction is a materially significant aspect of a project's value chain and business case. Key considerations in the formulation of the workforce strategy are labour productivity, labour costs, workforce structures, industrial harmony, technological substitution for labour, and skills shortages.

When an area of the value chain intersects with the social context (as is the case with jobs decision-making) the internal business case will generally take precedence and drive how and why companies consider the social context. Resource projects develop the business case within the confines of the regulatory environment, considering all applicable state laws (i.e., employment conditions, industrial relations laws, and local content and participation regulations). Companies will, however, strive to optimise benefits and to minimise costs through access to a pool of cheaper labour, trade-offs with productivity offsets, and accommodation and transport options for the workforce, to the extent allowable under the legislation. The cost of labour for project delivery is materially significant, amounting to between 20 and 40 percent of the project cost during the construction and operations phases depending on the project location. Lower-cost, local labour, particularly in developing economies, therefore, provides a powerful impetus for companies to consider its use in the workforce model, regardless of prescriptive regulatory requirements or community expectations. Companies use non-resident workforces for cost reasons but also to decrease union influence in communities and workforces where there are significant industrial relations issues. Where local labour is expensive, and/or there are significant skills shortages, companies may lobby government for relaxation of labour laws in particular for the construction workforce as evidenced in Australia during the coal seam gas boom (Chapter Four).

The main external drivers are economic (project financiers and shareholder expectations), regulatory (i.e., government approvals and local content and participation requirements) and social (i.e., community expectations and the local context supported by pressure from social activists). Governments and regulators combine with financier's expectations to exert the next highest influence with companies focused on securing and maintaining timely and project-conducive approvals. Companies seek to access project finance to fund the development of the project and construction post-government approvals. Second tier and

smaller resource companies may also require project finance at an earlier stage to enable the completion of a bankable feasibility study. Project finance providers can include loans from banks, bonds, DFIs (like the IFC) and equity.

Project financiers are primarily interested in a good return on investment. Commitments to local jobs are mostly only important to financiers to the extent required to meet legislation and prescribed ESG policies and standards and to demonstrate that material project risks associated with community conflict are well-controlled. Community conflict will be given higher prominence in the deliberations of project financiers and the ongoing compliance reporting requirements in conflict-prone and fragile state third world locations. DFIs often have broader nation-building socio-economic objectives, and jobs expectations. Shareholders also exert high influence on resource companies making project decisions. Investors want confidence in the ability of the enterprise and project leaders to maximise short- and long-term returns. New growth projects are an important demonstration of a company's growth pipeline for future revenue generation as well as the capability of senior executives. Local jobs and the social context for short-term investors are a focus only to the extent that the impacts associated with the social context can result in the company and project not meeting analysts' forecasts. For example, company approaches that materially impact on the reputation and share price of the company may add to the cost of the project, stall government approvals, and compromise access to market opportunity.

Local content and participation regulations are a major driver that combines with the threat of increased resource nationalism to influence jobs decision-making during the project design and approvals phases. Governments can exert considerable political pressure on companies during these phases in order to set high local jobs commitments. Project decision-makers form local jobs commitments considering regulations and political agendas and assess related socio-economic opportunities and impacts to the extent required under legislation. Companies mostly have good local content and participation intentions, but some can also set overly ambitious and prescriptive local employment targets in response to geopolitical pressures, community expectations, and regulations in the rush to secure approvals. Post-approvals and longer-term during steady operations, however, the capacity of government to enforce compliance with regulatory requirements in some country contexts can result in companies giving less emphasis to the attainment of local jobs commitments unless there is ongoing pressure from stakeholders. The probability of this situation

occurring will increase when project financier compliance requirements are extinguished (refer Chapter Two).

Addressing community jobs expectations to support the attainment of a social licence to operate generally has less influence than the internal economic environment, project, and local content and participation regulations. However, local communities in fragile states and high-conflict zones can exert considerable coercive isomorphic pressure[26] on companies, especially when this is combined with high government expectations, formal regulations, and social activism. The consideration of the social context will, therefore, be assessed and balanced against the probability of high external conflict. Where regulations are not in place, companies will consider the reputation/risk trade-off at the time. The cost of labour in the country will be a major consideration as to how local expectations are incorporated into the workforce profile. During the project design and approvals phases companies will pursue community support with an emphasis on obtaining a social licence to operate to the extent required to gain government approvals and to demonstrate to financiers that community risks are well-controlled. The example of industrial relations and minimising the influence of unions in certain contexts examined in Chapters Six and Eight lends weight to this view. Companies are seeking greater workforce control with individual rather than collective relationships with workers. This objective can override local community concerns and expectations in environments where companies are pursuing a de-unionisation strategy and in the absence of stringent local community participation regulations.

Social activists are another institutional stakeholder group that can have a coercive influence on project decision-makers, depending on the context and their level of power. Activists exert coercive isomorphic pressure on the project environment, project financiers, government and shareholders to give greater consideration to CSR and local and regional communities. These activists (potentially combining civil society, religious organisations, trade unions and local communities) are relevant to the extent that they can affect, frustrate and delay the approvals process or cause extensive and prolonged conflict that leads to the project incurring financial penalties and reputational issues for the company. The industry also assesses their relevance based on the impact of activist agendas on government local jobs expectations and the ability to influence the regulatory environment.

[26] Coercive isomorphic pressure is an institutional theory term that refers to vocal, powerful and critical pressure by stakeholders to conform to socially acceptable behaviour.

Table 18 summarises the significance assigned to the social context relative to the other drivers.

Table 18 Grounded theory propositions: influence of the social context in jobs decision-making

Number	Proposition	Institutional theory element
1	Consideration of the social context is primarily for internal instrumental reasons to support the development of a favourable business case.	Normative
2	Companies assess the social context to the extent necessary to gain support from project financiers and owners (economic reasons), and government approvals (regulatory reasons).	Regulative
3	Companies give more consideration to the social context where it is necessary to avoid the potential for extreme community conflict that could materially impact on the delivery of the project.	Coercive isomorphic pressure
4	Companies will have a stronger propensity to trade-off community acceptance in order to optimise business benefits in the absence of economic and regulatory requirements and where community conflict is unlikely to impact materially on the delivery of the project.	Normative
5	The combined coercive pressure on project financiers and regulators by communities, social activists, and trade unions to consider the social context is resulting in incremental improvements across the industry rather than step-change in company practices.	Coercive isomorphic pressure

10.2.2 Rationale for fuller consideration of the social context

This section addresses the second research sub-question.

- Why should resource companies give fuller consideration to the social context in jobs decision-making?

The research in Chapter Six confirmed that there are compelling economic, regulatory and social licence influences for companies to give fuller consideration to the social context in jobs decision-making. Companies, however, might not recognise the extent to which these influences are pressing, interlinked, and impact on each other. Previous research does not appear to have strongly drawn out this point. The analysis in Chapter Seven confirms that consideration of the social context in jobs decision-making is most likely at the late habitualisation phase, transitioning to the objectification phase of institutionalisation[27]. This stage, between the two phases, means that some companies are placing more emphasis

[27] The three phases of institutionalisation within individual organisations as contained in Chapter Three and drawn from Tolbert and Zucker (1999) are habitualisation, objectification, and sedimentation. Habitualisation refers to actions of the early adopters of a practice at the individual firm level to deal with a particular opportunity or problem. Objectification occurs when other companies see the practice as having perceived and/or real value and spreads by imitation to other businesses. The final stage is sedimentation where the practice is universal and sustained for a long time across the industry.

on understanding the social context, largely because of the past experiences of executives, the project team, and CSR practitioners. The majority of project decision-makers, however, are still largely focused on assessing social matters only to the extent required by legislation, rather than embedding social analysis as a key component of large-scale project jobs decision-making during the design and approvals phases. Companies will continue to make incremental progress, but the case for fuller consideration of the social context becomes stronger through projecting the likely longer-term influence of these economic, regulatory and social licence to operate drivers.

Financiers and shareholders are placing increased emphasis on the ability of companies and the industry to anticipate, respond to and manage social risks, resource nationalism and regulatory risks, activism, and community conflict to maintain and secure project approvals. This situation is inadvertently spilling over to the social context in jobs decision-making becoming more important for companies in accordance with the example of the PNG LNG Project developing economy case study (in Chapter Nine). DFIs will also continue to increase their emphasis on the realisation of project benefits and linkages (see Chapter Two).

Local content and participation will continue to be highly politicised, and the level of regulation is likely to grow in line with community expectations and social pressures as described by Jamali (2010), Porter and Kramer (2011), Ward (2009) and Dobbs (2013). Evidence of this trend abounds across developed and developing economies and it is not unforeseeable that governments may extend prescriptive requirements to the construction phase (see Chapter Two). While governments are pushing for increased participation, they are simultaneously more prescriptive about the time frames in which projects must be completed (as seen in the Mozambique and Ghanaian examples in Chapter Two).

Increased local participation during the construction phase can create tension with short-term wage inflationary pressures in some economies (Imbun 2009). Governments in this situation experience conflict between creating a lot of new jobs for a short period versus artificially inflating national wage rates, which can impact on the economy and attractiveness of the location for new investment. Wage inflation and shortages in skilled labour can result in high labour construction costs (either through local labour shortages or high expatriate wages) relative to the base wage rate in both developed and developing economy contexts.

Project capital expenditure can increase substantially from this situation, which brings the ire of investors, financiers, and equity partners (which may include governments) as in the example of the LNG boom in Australia (presented in Chapter Four). If the regulatory trend continues, it is not unforeseeable that in developing economies, governments would link jobs targets to local and national unemployment rates and greater support for beneficiation. The high systemic rates of unemployment (especially amongst youth) across developing resource economies and the need for government to demonstrate that it is delivering project benefits through the political and regulatory environment will drive this trend.

Chapter Four explored the emerging focus by companies on automation connected to rising labour costs, levels of productivity, and health and safety. As automation increases, and the number of unskilled roles decreases, governments could incorporate a greater emphasis on technology, skills transfer and broad-based development into regulatory requirements to compensate for decreased jobs. Social impact assessment regulation may also become more prescriptive in line with this change in order to better understand the impact of automation on local communities. This situation is likely across both developed and developing economy project contexts. Taxation incentives are another lever that the government can use to incentivise or penalise local jobs performance. Over time the decreasing availability of local and regional jobs from automation for communities that do not have access to other benefits (such as non-landowning communities in PNG) could cause greater suspicion and community unrest. This situation may make it necessary for companies to provide more consideration to the social context and ways to disburse the job benefits to the broader region in these settings (see Chapters Four and Eight). Not giving the impacts and risks of automation and associated mitigation measures more upfront emphasis in project planning could contribute to heightened resource nationalism risks through the potential for elevated royalties and equity uptake. It is better that the industry engages proactively with government on this agenda to influence the formation of suitable, fair and transparent development-oriented policy, rather than suffer the consequences of inappropriate regulations and conditions.

These trends reinforce the interconnectedness of the economic, regulatory, and social context influences and the importance of companies strategically rebalancing and reconciling these elements in project decision-making. The analysis in Chapter Seven also reinforces the strategic imperative for companies to give fuller consideration to the six CSR

concepts identified by Crane and Matten (2008) in jobs decision-making to mitigate against inappropriate and prescriptive project conditions. Given the importance of jobs decision-making to companies and communities and the strong connection to the social context, why is there an absence of research and industry-wide normative elements to guide and influence changing business practice? Although not explicitly stated in the interviews, I gained the sense from the dearth of literature and my practical experience that companies guard jobs decision-making carefully and do not want it opened to analytic scrutiny. The industry currently has anecdotal but not systematic empirical data to suggest that fuller consideration of the social context during the project design and approvals phase can result in a more favourable business case, irrespective of the regulatory environment.

The proposition in Table 19 summarises the reasons why companies should give fuller consideration to the social context during the project design and approvals phases.

Table 19 Grounded theory propositions: rationale for strengthening the social context in jobs decision-making

Number	Proposition	Institutional theory element
6	If companies do not place more emphasis on the social context in jobs decision-making they will continue to experience sub-optimum outcomes, compounding issues securing government and financier approvals, obtaining access to a suitable workforce, and gaining community acceptance.	All

10.2.3 Configuration of company processes to better consider the social context

This section addresses the third research sub-question drawing from the analysis presented in Chapters Six to Nine.

- How can internal company processes be configured to enable fuller consideration of the social context in jobs decision-making?

The above section highlighted that the awareness of the need to place more emphasis on the social context is not translating well into practice in the decision-making project environment during the design and approvals phases. Therefore, for changes to company processes to be adopted across the resource sector and the better embedding of CSR approaches, the macro normative elements require strengthening to provide the evidence necessary to underpin changes to business practice.

As discussed in Chapter Six, several interviewees recommended a strengthened empirical model to compensate for inadequacies in the financial analysis, enabling a much higher level of judgement of social issues and risks in project decision-making and the calculation of the project financial estimate. Research and industry partnerships are needed to collate quantitative and qualitative empirical data to align the economic, regulatory and social licence drivers and to justify fuller consideration of the social context in jobs decision-making. Practical guidance by industry associations (i.e., ICMM and IPIECA) for members would inform and influence industry practice. An industry-wide 'lessons learnt' database could also be established based on the 'lived experiences' of executives and project teams. This database has the potential to drive cultural-cognitive change to the values, perceptions and beliefs of the project team given that these teams like to learn from their own practical experiences and mistakes and that of their peers (as identified in Chapters Four and Seven).

The strengthening of the IFC Performance Standards and other financier standards to place more emphasis on community and nation benefits would also drive change in company behaviour through the project financing model. In Chapter Two, it was noted that the IFC recently released a discussion paper by Lohde, Armstrong and Nyan Jones (2015) that provides guidance on benefits sharing and how the IFC assesses employment advantages of potential-IFC-funded projects. By logical extension from this discussion paper, the IFC Performance Standards could be updated to emphasise the importance of:

- project employment linkages
- commitments to local employment
- the development of appropriate recruitment, training. and community development jobs plans
- social analysis that outlines the negative and positive impacts of jobs decisions, and conversely to protect the interests of the project proponent
- a requirement for an independent assessment of whether government employment conditions are realistic and the unintended consequences that regulatory imperatives could exert on the social context (e.g., inflationary wage pressure).

Collectively, these normative and regulative elements would increase the normative and mimetic isomorphic pressure[28] on the industry, companies, and financiers to give fuller consideration to the social context in jobs decision-making. The analysis in Chapters Six and Seven highlighted the heavy influence of the 'have to' (regulative) and 'ought to' (normative) elements of short-term market expectations, KPIs, and incentives on company and personnel project behaviour. The 'want to' (cultural-cognitive) element "is the personality of the organisation" and is "where values reveal themselves through people's behaviours, attitudes and decisions" (Leigh 2013, p. 15). Strengthened macro-level normative and regulative elements can, therefore, translate into company and project KPIs, incentives, and prescriptive requirements, which significantly influence the formation of cultural-cognitive elements (leadership, shared values, understanding, and beliefs) and the behaviour of the team. Boards and executives at this point will incrementally strengthen their cultural cognitive awareness of the connection between jobs, the social context, and the business case. These roles will then seek ways to enhance the consideration of the social context in practice in the project delivery governance structure.

Chapter Two outlined how the institutional field for the delivery of large-scale resource projects comprises a mix of complex internal organisational structures and external stakeholders. At the macro level, the board, product group, and global headquarters set the organisational strategic objectives. The meso level for project delivery comprises the business unit where the project sits, the joint venture partners with an ownership interest in the project and the EPCMs involved in the design and construction. The micro level incorporates the company asset, project team, and functions from across the business supporting project delivery. The project team, over two to three years during the project design and approvals phase, sets the operational workforce profile. The EPCM and EPCs will generally determine the construction workforce delivery requirements. Workforce accommodation arrangements during construction can either be assessed and managed by the owner or by contractors.

Companies however mostly do not establish from the outset proper alignment between the owner's growth strategy and objectives and the project delivery architecture. As discussed in Chapter Six, several interviewees highlighted how this lack of alignment can result in

[28] Normative isomorphic pressure refers to the pressures asserted from shared values to adopt institutional practices. Mimetic isomorphic pressure refers to companies imitating the practices of others, including the sector as a whole, to gain legitimacy.

conflicting strategic and tactical priorities and schedules, and the strong potential for a clash of cultures in the planning and delivery of projects. A lack of expectations and objectives for why and how companies should consider the social context in jobs decision-making is therefore commonly evident across the project governance structure. The lack of a clear leader for local employment can compound the situation, making it difficult to achieve aligned direction and action. CSR roles are often also not formally embedded in the jobs decision-making processes, risk assessments, or project tollgates during the project design and approvals phases to feed information to the project director and team. The ability of the role to effectively influence project decisions, therefore, becomes largely relationship-dependent.

Chapter Seven identified the inherent contestability and high potential for internal conflict in the project governance structure regarding the importance of and amount of social analysis required to inform jobs decision-making. The chapter recommended that aligned objectives, social specifications and tollgating protocols can be used to drive common practice, and in turn, embed values across the business. The way to fully integrate the social context into jobs decision-making, therefore, starts by reconfiguring company normative and regulative processes across the project governance structure to address the above challenges. Through the development of these elements, companies can build the cultural-cognitive institutional elements of shared understanding, values, structures, objectives, and problem framing from the macro levels down to the meso and micro arena.

From the early project design phase onwards, companies should align and articulate the strategic project economic, regulatory, and social licence to operate project objectives and risks throughout the decision-making hierarchy. Executives should send a clear directive on how projects should incorporate the social context in jobs decision-making. These aspects provide standardised shared institutional understanding and form the normative frame of reference for the project. Armed with this understanding, projects can then more strategically assess and consider economic, regulatory and social influences and trade-offs connected to the localisation of jobs decision-making at each stage of development. At intervals, as the project progresses, and as more information comes to hand, these standardised and localised imperatives and risks can be rebalanced, if needed.

All levels of the project governance structure will likely require change management and cultural sensitisation during the project design and approvals phases. An area for sensitisation is awareness of the project-specific social risks and issues across the themes presented in Chapter Eight that could impact on the project business case. The themes are 'business factors, communities of interest, socio-economic considerations, service delivery enablers and broad-based development'. For example, significant cultural differences and conflict can arise between different communities, tribes, and clans as well as employee classes and contractors regarding their real or perceived equitable access to jobs. This conflict can result in ongoing material risk for the project during the approvals phase, delivery of the project on time and to schedule, as well as through into the operations phase. The jobs decisions made by the project, EPCM and EPCs during the design and approvals phases is, therefore, a critical part of conflict management.

Sustaining and devolving the cultural-cognitive elements across the project governance structure requires assigning a senior executive with jobs decision-making accountability to lead the development of the workforce strategy as well as the normative and regulative elements to underpin this direction. Some researchers may consider that the 'putting someone in charge solution' is an easy recommendation, but the reality that I have come to understand in practice is that assigning a senior executive with accountability gets results. The executive has the imprimatur to influence and make changes which lead to a change in company practice. Without someone with this accountability (with assigned KPIs and long-term project incentives) it may not happen because it is not on the senior executive priority list. The acknowledgement by interviewees and the literature that CSR roles are often too low in the structure to influence project decision-making and that often a clear leader for local employment decision-making is not in place reinforces the need for improved leadership.

The internal project regulative elements include the alignment of performance contracts, KPIs and incentives, local participation commitments and delivery mechanisms and ensuring CSR role involvement in project tollgates and risk assessments to advise on the social context. Roles with CSR expertise must embed in project jobs decision-making processes at key milestones (e.g., workforce risk assessments, EIS/SIA internal peer review processes, and financier approvals) to assess and inform the project on the social context. Funds should be nominally allocated for social analysis to support jobs decision-making with

prior agreement on the triggers for release. As the project nears the government approvals phase, the senior executive should ensure that engagement with local communities on employment opportunities is documented and forms a strategic aspect of the stakeholder engagement plan. The company must also agree on the social analysis to include in the SIA for jobs decision-making versus more commercially sensitive analysis that will be kept separate and used for internal purposes. The senior executive should develop and align the company's jobs negotiating strategy and public commitments with consideration of the social context in preparation for the government approvals phase, taking into account resource nationalism and other regulatory risks.

The progression to the government approvals phase and the establishment of local employment delivery mechanisms (i.e., project owner/operator, hub, and EPCM models) should trigger the reinforcement of shared understanding and responsibility for jobs decision-making in the project governance structure. During this phase, there is a need for the consolidation of aligned owner, corporate, project, and EPC/M social performance understanding, objectives, systems and escalation points. The governance mechanisms for the delivery of local jobs commitments should be agreed and incorporated into EPCM, and EPC contract terms and conditions. Examples include the inclusion of employment commitments and targets, performance measures and agreed approaches for stakeholder engagement and the engagement of local workforces as well as standardised grievance/retribution mechanisms. At this stage, the senior executive should finalise the project's local jobs commitments and government negotiating strategy position, ensuring that sufficient community and government stakeholder engagement reinforces and documents the company approach.

The literature in Chapter Eight and the analysis of the PNG LNG Project in Chapter Nine highlighted the importance of aligned systems and the costs and contention that can occur when companies do not give up-front consideration to these aspects. Companies should pay particular attention to the governance structures and CSR jobs decision-making requirements during the construction versus operations phases, ensuring that HR, CSR and security functions are aligned under a corporate umbrella along with contractors. An essential part of the governance structure is the determination about how the project and EPCMs and EPCs will manage industrial relations and workplace disputes. An aligned structure provides transparency and consistency of approach and ensures that local

community members and the workforce understand their rights and obligations and that the company will listen to and respond to their employment concerns. For these reasons, an integrated industrial relations strategy and workplace and community harmony early warning and monitoring system should form an essential part of the governance structure. Underpinning the approach is the requirement for aligned longer-term and shorter-term KPIs and internal and external monitoring and reporting systems across the project governance structure. Planning for this approach during the project approvals phase provides the regulative elements to support fuller consideration of the social context in jobs decision-making.

In addition to the reconfiguration of processes outlined above, a fuller consideration of the social context also requires practical guidance for industry on the types of social analysis and CSR processes that are useful to guide and support the progression of the workforce strategy. Chapter Eight explored the themes of 'business factors, communities of interest, socio-economic considerations, service delivery enablers and broad-based development' that intersect with jobs decision-making and consideration of the social context. The PNG LNG case study in Chapter Nine applied these themes to a 'lived' developing economy project example. The analysis across Chapters Eight and Nine, supported by the literature in Chapters Two and Four provide sufficient markers to confirm the relevance of the themes to inform jobs decision-making across a multitude of location contexts. However, the degree to which each sub-theme under these main themes is relevant and influences jobs decision-making will be specific to the individual project variables and the social context. For example, under the socio-economic considerations theme developed resource communities in Australia are unlikely to experience the impacts of polygamy, whereas the risks are elevated in local PNG developing economy villages. However, both locations may be just as likely to experience social impacts associated with inflationary pressures due to higher wages and alcohol and other substance abuse, with the severity specific to the project and community.

The feedback from interviewees, which was confirmed in a developing economy context through the review of the PNG LNG Project SIA in Chapter Nine, is that the SIA is not the vehicle for companies to give fuller consideration to the social context for jobs decision-making. The SIA can inform practice and provide valuable information on the themes,but it is not the avenue for this more nuanced assessment. Companies must keep this analysis separate for the reasons mentioned by interviewees in Chapter Eight: expectation and

commitment creep, precedent setting, and the politicisation of the government approvals phase. Maintaining confidentiality of this analysis will maximise the potential for the fuller consideration of the social context in jobs decision-making, reflecting that inclusion in the SIA would be too early, too binding, and not flexible enough.

Earlier consideration of the social context, local jobs and associated linkages under the themes above can provide more time for companies and communities to realise project job benefits. Job linkages can be directly with the enterprise, indirectly through local suppliers and organisations supported by the resource project and induced through the demand for goods and services by employees. More broadly, businesses can also support employability initiatives to catalyse the creation of employment in other industry sectors of the community and region. By bringing a broader focus to jobs and the social context, businesses can go slower in the initial parts of the design phase, taking the time required to understand the social context and the potential consequences of job decision-making. This approach can support a smoother transition through the approvals process by demonstrating a stronger connection to the social context as well as building relationships and trust with community stakeholders. More time can also be allocated for communities to self-empower, to build their capacity to manage changes associated with the project, to capitalise on job opportunities and to form realistic expectations, progressively building their skills in line with the development of the business case. However, companies must balance the pursuit of this approach with the recognition that the majority of projects under study do not proceed to the pre-feasibility and approvals phase. Therefore, careful management of stakeholder expectations and only making jobs commitments appropriate for the project phase is critical (as emphasised by interviewees in Chapter Six).

Chapter Four highlighted the importance of front-end loading projects to enable the delivery of strategic value as well as the imperative for adaptive capacity and information agility in responding to project and stakeholder complexities in a way that is consistent with the business strategy.

Table 20 summarises how resource companies can institutionalise fuller consideration of the social context in jobs decision-making.

Table 20 Grounded theory propositions: Strengthening the social context in practice

Number	Proposition	Institutional theory element
7	Companies are unlikely to move beyond incremental changes to the consideration of the social context in jobs decision-making until the macro cultural-cognitive elements are defined, articulated and embedded in meso and micro project practice.	Cultural-cognitive
8	Clearly defined, articulated and embedded nested cultural-cognitive elements will drive the development of internal company meso and micro regulative and normative elements, and at this point, a fuller consideration of the social context will have a high probability of becoming institutionalised as sedimented practice.	Cultural-cognitive, regulative and normative

Table 21 provides a practical social analysis framework to inform company jobs decision-making in practice. Companies can customise the framework specific to the project economic, regulatory and social context. The framework can then be used as a decision-support tool from the design phase onwards to progressively build shared understanding and processes to support social analysis across the project governance structure. This approach builds defensibility into project planning processes providing evidence to demonstrate to project financiers, owners (and potentially government and communities) that benefits are well-considered and social risks associated with jobs decision-making are well-controlled.

Table 21 Towards best practice: integration of the social context in jobs decision-making framework

Towards best practice: integration of the social context in jobs decision-making
Strategic project value, jobs and the social context: during the project design and approvals phases, progressively analyse and take into consideration the social context in jobs decision-making across the five interconnected themes of 'business factors, communities of interest, socio-economic considerations, service delivery enablers and broad-based development'. The actions in the below sections align with the concepts of: • Shared value: leveraging the value chain for business and community benefit • CSR: focusing on optimising opportunities as well as minimising and mitigating project, jobs and inappropriate government conditioning risks and negative impacts • Social licence to operate: engaging with communities and stakeholders to understand opportunities and issues and to build realistic expectations. **Timing:** from the commencement of the design and early approvals phase onwards.

Towards best practice: integration of the social context in jobs decision-making
Business factors: actions
'Business factors' covers the workforce profile, conditions and infrastructure, technology, workforce localisation, project lifecycle, skills shortages and mismatches, and workforce harmony.
Local workforce suitability mapping: assess the local cultural context and identify roles suitable for local jobs. (For example, some cultural groups may not feel comfortable working underground for religious or cultural reasons).
Skills shortages: understand the impact of local skills shortages on the business and incorporate education and training initiatives into the workforce strategy.
Transparent hiring practices: develop transparent recruitment protocols and plans and labour hire and contractor protocols and incorporate into EPCM contracts and project governance structure.
EPCM contractors: identify suitable governance mechanisms to ensure EPCM compliance to company local jobs requirements. Areas include the use of local workers, occupational health and safety codes, compliance with minimum wages, social security and sick pay for permanent workers, plus excess overtime, human rights obligations and local workforce and community dispute mechanisms.
Contractor workforces: assess the risks of and to contractor workforces regarding low pay, poor working conditions and limited labour rights within local communities in developing economies in particular. Consider harmonisation of employee policies and practices between the EPCM, EPCs, permanent mine and the contractor workforce and governance mechanisms for adherence (Van Alstine and Afionis 2013) to the extent practical without compromising the business case.
Interdependency between community and unions: analyse industrial relations regimes cross-correlated with cultural and community mapping and stakeholder analysis to understand interdependencies and risks for the business.
Industrial dispute settlement mechanisms: develop and align dispute resolution and monitoring mechanisms for labour relations, employee concerns, community grievances and crisis management over the construction and operation phases.
Technology: incorporate consideration of the implications of technology innovation throughout the project and supply chain from the outset. (Connects to the concept of employability).
Technology diffusion and knowledge transfer: investigate technology diffusion and knowledge transfer opportunities with national, regional, and local institutions as part of implementation (flagged for consideration linked to ramp up of technology) without compromising competitive advantage imperatives.
Technology and workforce mapping: identify the impact and scalability of proposed technology on unskilled and semi-skilled roles and the intersection with local participation commitments, government and community expectations, community vulnerability, and the potential for conflict.
Shift rosters: consider shift rosters that are sensitive to the community's socio-cultural context and the families of locally sourced workers. Also evaluate how local shift rosters can support labour productivity.
Employee assistance programs: provide programs to support families of non-resident workers which can also help companies to limit employee turnover (McKenzie 2010; Torkington, Larkins and Gupta 2011). Consider implementing workforce mentoring programs for first-time resource sector employees (indigenous, developing economy, non-resident and green-hands).
Resident and non-resident cohesion: develop a resident and non-resident cohesion plan for non-resident workforces near communities including a 'buy local' program.

Towards best practice: integration of the social context in jobs decision-making
Communities of interest: actions
'Communities of interest' covers the social impacts associated with the identification of preferential employment zones for project-affected landowners and communities as well as consideration of community feedback and participation in jobs decision-making.
Local employment catchment: develop a robust definition and eligibility criteria for local employment catchments, considering the extension to the regional and national levels. Gain agreement from community and government stakeholders early in the project approvals phase.
Local participation targets: if required by legislation, set conservative local employment targets to avoid unrealistic expectations. Understand the impact of local employment targets on broader communities (e.g. demand for social infrastructure as covered in other sections). Assess whether local participation commitments should incorporate a mix of direct, indirect and employability targets to minimise reliance on the project over time. This approach may enable companies to count jobs generated through local content small business programs towards local participation targets as well as skilling programs for other industry sectors.
Stakeholder engagement: engage with stakeholders in the development of local participation strategies to understand what communities are seeking, trade-offs and competing imperatives and to communicate the jobs benefits that the project will and will not deliver. • Understand what communities and nations are seeking regarding access to jobs, skills and innovation/technology and the trade-offs and reflect where possible in the workforce strategy. • Monitor community issues and attitudes to local employment through regular engagement mechanisms with the community and local workforce. • Understand the community and cultural customs, beliefs and attitudes to work to inform the workforce strategy. • Engage with local stakeholders, government, and institutions in understanding skills shortages.
Community advocacy: identify leaders and advocates in the community who can promote the company's approach to local jobs and where engagement on jobs can be used to unite divergent stakeholder project views favourably.
Socio-economic considerations: actions
The 'socio-economic considerations' theme contains a broad range of areas covering poverty (inequity and inequality), migration (inward and outward), human rights (labour), housing, health, livelihoods and vulnerable groups (women and indigenous).
Social analysis to underpin jobs decision-making: identify social analysis requirements (such as socio-cultural, health, economic, attitudinal, and skilling surveys) to underpin local and regional jobs decision-making and the assessment of social impacts. This analysis is particularly important in developing, Indigenous and fragile/conflict-prone environments and/or where required by law or financing requirements. Do not make generalisations to other contexts from individual studies as it may be inappropriate due to the specific context of the project under study (Solomon, Katz and Lovel 2008). Progressively undertake the social analysis. Allocate a budget from the design phase onwards for local employment-related social analysis.
Social risk assessment: at periodic intervals in the project design and project tollgates comprehensively assess the social and economic impacts for host communities of the workforce design (workforce profile, location, and infrastructure design) and make changes as required based on the business case, risks, and feedback from engagement. Examples of areas to consider include:

Towards best practice: integration of the social context in jobs decision-making
• **Assessment of poverty traps and impact (and opportunities) for vulnerable groups (women, youth, indigenous and children):** assess the potential impact on inequity and inequality and exacerbation of social and economic issues associated with jobs decision-making. • **Migration inward and outward**: include local employment mitigation measures into the project design and in-migration plan. • **Human rights**: assess the interaction points between the workforce and community and introduce a monitoring program and grievance dispute mechanism. • **Housing and health**: evaluate the impact on housing affordability for non-resource sector workers where companies provide subsidised or improved accommodation for the workforce. Evaluate the strain on health services and infrastructure and conversely improvements to health services. Undertake health impact assessments to understand current health baseline and vulnerabilities linked to recruiting a healthy, safe, and productive workforce.
Draw from other industry sectors: assess community issues associated with demand for local labour and impact on other industry areas such as agriculture and manufacturing and related inflationary pressures.
Employability: when setting local employment targets, plan to incorporate support for broader community employability initiatives linked to the region's industry base over time during stable operations. (This approach will become more attractive during the operations phase for oil and gas when employment opportunities rapidly decrease and also when companies are considering the implementation of new technologies in areas that will have a significant impact on the demand for unskilled labour e.g. driverless trucks).
Gender: develop a workforce diversity, inclusion and recruitment program and design suitable roles for women taking into account: • obligations outside the workforce (e.g. in developing economies the role of women with tending vegetable gardens and impact on food security). • impediments to female participation in the workforce. • support programs that may be required to enable women and their families to transition to the formal economy (e.g. domestic violence). • cultural contexts and relations between men and women and the potential impact on job roles. Include gender requirements in local content and participation, supplier contracts and community development and employment initiatives.
Financial management for the future: ensure ready access to banking and financial services for workers and local contractors to deposit their pay and to invest for the future. Incorporate money management capacity building especially for local communities who are transitioning to the cash economy.
Service delivery enablers: actions
Government services and infrastructure delivery as well as education, skills, and training form part of the 'service delivery enablers' theme.
Skills development: implement a workforce skilling and localisation program and partner with government and industry players to collaborate on long-term local and regional skills and education development strategies. (The negotiation of project benefits during the government approvals phase, depending on the legislative environment, may provide opportunities for companies to advocate for greater contributions by the state to local, regional, and national education and skilling initiatives as well as greater taxation incentives for skills development. Companies should push for royalties and benefits to be utilised in these areas).

Towards best practice: integration of the social context in jobs decision-making
Broad-based development: actions
The 'broad-based development theme' covers regional development and project linkages and royalties and taxes.
Government capacity building: support government to build its ability to deliver policy, programs and benefit streams to strengthen long-term development and job creation opportunities for host communities and regions. For example, regional development strategies and education and skilling programs. (The intent of this approach is to support governments to increase their institutional and governance capacity for the effective prioritisation and allocation of project benefits for long-term development).
All themes: actions
Monitoring and evaluation: design and implement a monitoring and evaluation framework to assess the impact of implementation of the local and regional workforce strategy aligned with employment-related UNGA SDGs as well as the concepts of CSR, social licence to operate and shared value. Where appropriate, the approach should interface with the project approvals and indigenous agreement compliance reporting mechanisms. An important intent of assessing the impacts of implementation is to connect to, *the expectations that people have, the opportunities to gain access to jobs, the quality of the jobs and the ability to rise up once they have a foothold. (CSR1)* Consider making this information public (if that is not already a requirement under government project conditioning). Public information enhances project transparency and can assist to hold governments to account for their commitments to support broad-based development.

10.2.4 Drawing together the 'what, why and how' of the social context

The above sub-sections provide a detailed response to the research sub-questions, which combine to answer the overarching research question.

- What weighting is currently given to the social context in jobs decision-making for large-scale resource projects and why and how should resource companies institutionalise its fuller consideration?

The answer to the research question, summarised from the responses to the sub-questions is as follows:

Economic business case factors, technical decisions and regulatory imperatives are given greater weighting and take precedence in jobs decision-making and drive how and why companies consider the social context. This approach reflects the commercial importance of the workforce model to the attainment of strategic project value. In developing economies,

the social context may receive more emphasis so that companies can access a suitable pool of lower cost labour and to keep relationships with the community at a manageable level.

The project business case and the attainment of strategic project value have the high potential to be compromised by companies not giving fuller consideration to the social context in jobs decision-making. The project requires information on the social context to:

- make a stronger connection to local community views and values and to manage expectations
- more strategically assess potential business impacts and to rebalance local jobs commitments to meet or mitigate increasingly prescriptive local participation regulations
- be pre-emptive in the assessment of potential community impacts associated with increased automation
- develop alternative socio-economic development strategies to transfer benefits to local communities.

Addressing these aspects will assist to manage many of the markers and impacts of jobs-related local conflict.

Industry-wide leadership is required to promote better understanding of - and demonstrate the connection between - the social context and jobs decision-making to the project business case. Within companies, the project governance delivery structure needs changing to incorporate accountability and leadership responsibility with aligned jobs and social context objectives, expectations, KPIs, project delivery mechanisms, and monitoring and compliance systems. CSR roles must also develop more targeted social analysis, providing this information to executives at key times during the design and approvals phases to inform practice. This institutional approach, aligning regulative, normative and cultural-cognitive elements, and the concepts of CSR, social licence to operate and shared value, will drive the industry and individual companies ‘towards best practice’ in jobs decision-making.

In summary, the answer to the question provides a persuasive response that meets the aim of the research to emphasise both a socially valuable end and one that makes commercial sense for companies. The final proposition as outlined in Table 22, is that:

Table 22 Towards best practice in jobs decision-making

Number	Proposition	Institutional theory element
9	Fuller consideration of the social context in jobs decision-making through the alignment of the cultural-cognitive, normative and regulative elements, demonstrates CSR and can assist companies and the industry to gain a social licence to operate, resulting in better outcomes for communities and companies through the attainment of shared value.	Cultural-cognitive

10.3 Statement of sustainability contribution

This study makes a solid contribution to sustainability in large-scale project jobs decision-making practice. A recent report on behalf of the World Economic Forum by Lewis and Flynn (2016) highlighted ways that the resource sector can contribute to the UNGA SDGs through jobs:

- SDG1: poverty eradication: through the provision of equitable access to employment, training and education programs and value chain jobs linkages
- SDG4: quality education: routine skills and education baseline assessment and workforce training programs
- SDG5: gender equality: equal work opportunities for women, equality in working conditions, flexible work schedules to accommodate childcare requirements
- SDG8: decent work and economic growth: provide decent work while also managing expectations through communicating the capital intensity of the sector, classifying jobs as direct, indirect and induced, and articulate the contribution to industry diversification through linkages
- SDG10: Reduced inequalities: be sensitive to local wage disparity and employ disadvantaged and marginalised groups.

'The Towards Best Practice: integration of the social context in jobs decision-making framework' presented above provides practical guidance on how companies can make a fuller contribution to these SDGs.

10.4 Future research agenda

The main recommendation for future research is the need for strengthened quantitative and qualitative empirical data to demonstrate the connection between the social context and the business case across a multitude of contexts to catalyse company and resource sector action. This study goes some way towards understanding the issue but additional qualitative and quantitative evidence will help inform company decision-making and persuade executives and project roles to take a more strategic approach. Additional research required (building on the commentary in other sections of this chapter) includes:

- assessing the relevance of the themes in Chapter Eight across a range of first world, developed (regional, remote and indigenous), and third world, developing economy mining and oil and gas contexts to enhance the generalisability of the outcomes
- applying the best-practice jobs decision-making framework in 'real time' for new growth projects, and monitoring over the longer-term the community and business outcomes to assess whether the approach elicits the intended shared value, CSR and social licence outcomes
- compilation of a lessons learnt database from roles involved in large-scale project planning and delivery and jobs decision-making, building on the analysis in Chapter Eight
- economic assessment of the cost of conflict, delays, and risks for businesses associated with jobs decision-making and attaining regulatory approvals for current projects and future licences
- measuring the true costs of labour connected to the social context associated with trade-offs with productivity, workforce harmony, and training
- documenting the costs and issues of the unintended consequences and conversely positive impacts over the themes presented in Chapter Eight
- greater financial analysis of how the social context in jobs decision-making impacts on the economic contingency incorporated into the discounted cash flow and net present value financial model and flows through to the cost of capital and project forecast returns
- economic assessment of the consequences for governments and nations of access to local employment from the resource sector (e.g., wages inflation, taxation, knowledge transfer, and productivity)

- compiling case studies that demonstrate best practice local jobs and workforce localisation programs across a broad range of project and social contexts
- analysing community and government perceptions, issues and opportunities over a multitude of project and location contexts for the five internal company project jobs decision-making themes

Another important research area is comparative nested institutional theory analysis of the progression of the institutionalisation of sustainability practice across other business areas and the role of leadership and culture in driving and enforcing change. The institutionalisation of behavioural safety, environmental performance, emissions reduction programs, and the evolution of sustainability reporting are examples where comparative research could provide valuable academic and practitioner insight. A recent study by Gunningham (2016) assessed the implementation of health and safety strategies, systems and standards from the corporate headquarter level to operations for BHP Billiton in the Pilbara, Western Australia. The paper, did not reference institutional theory, but covered similar concepts, and analysed the disconnect that can exist between internal regulations, the devolution of company approaches to health and safety, and the attitudes and behaviour of personnel at the operational level. The research in my study, combined with that of Gunningham (2016) and Bice (2015; 2016), referenced in Chapter Three, could provide the foundations for a body of evidence-based and practice-oriented nested institutional theory CSR analysis for the resource sector. Haberberg's (2010) three phases of institutionalisation research (referenced in Chapters Three and Seven), can inform this comparative analysis, contributing to a more strategic assessment of the evolution of CSR and sustainability practice across the resource sector.

10.5 Limitations of the study

The scope of the research focused on external, institutional and internal business and social contexts associated with jobs decision-making. Literature was not forthcoming on the specific area of study. To identify and demonstrate 'knowing' of the research problem required a comprehensive multidisciplinary literature review. The very nature of the study, within the confines of the degree of Doctor of Philosophy's timeframe and word limit, therefore, emphasised breadth of data collation rather than in-depth analysis of the individual literature streams. Critical analysis of the topic occurred through the triangulation of practitioner insights with peer-reviewed and popular literature using institutional theory

and the concepts of shared value, social licence to operate and CSR to frame the analysis. This study, therefore, provides a robust and legitimate base to understand the topic, from which, further research can focus on critical analysis of the individual components and additional case study examples. The single case study did, however, provide an opportunity to flip the analysis to focus on an in-depth assessment of the social impact assessment and community issues experienced associated with the five themes, enhancing the integrity of the research approach. The recommendations put forward represent a point in time understanding of the problem and recommendations for practice. Consistent with the pragmatism paradigm guiding criteria for this study outlined in Chapter One, as new knowledge comes to hand on the individual components of the topic, recommendations in this study may be abandoned or reframed as understanding increases.

10.6 Conclusion

This study has delivered what it intended to achieve: to answer the research question through the completion of a series of project tasks in a manner consistent with the pragmatism paradigm. The research has grounded the analysis in the perspectives and current practice of practitioners, and presented a series of propositions to provide new theoretical insights. The implementation of this grounded theory methodology has resulted in new research to advance the knowledge base for researchers and practitioners alike.

The study has demonstrated the connection and importance of the social context to jobs decision-making. It provides normative and regulative guidance on what companies should do to incorporate fuller consideration of the social context into jobs decision-making during the project design and approvals phases. If the resource sector does not improve its capability in this area, it will be exposed to significant negative consequences. Local content and participation regulations will continue to become more highly politicised, resource nationalism and community expectations will increase and the incidence of job-related conflict across the project lifecycle will escalate. The threat of the loss or non-renewal of project licences due to communities and government not seeing timely access to the expected jobs project benefits will also grow. All of these factors impact on the project business case and long-term strategic value. Companies must, therefore, give more strategic up-front consideration to the social context in jobs decision-making as well as strengthen the project governance structure to drive this understanding and expectation throughout the business.

This study emphasises the instrumental importance of the social context in jobs decision-making to the project business case across a range of projects and locations. However, there is a fundamental and deeply defining human reason that demonstrates the 'good' that the resource sector can do and why companies should pursue this direction. I fundamentally believe that the resource sector can make a substantial contribution to shared value for local and regional communities through access to quality jobs. More up-front care, respect and foresight in how companies consider the social context in jobs decision-making can deliver economic and reputational benefits for companies and enduring benefits for local communities, especially in developing resource economies where the jobs imperative and social challenges are most pressing.

Appendix One: research methodology tools

This Appendix contains the semi-structured interview pro forma document, the Project Information Sheet and Consent Form referenced in Chapter Five.

Interview pro forma document

This section presents the interview pro forma for the semi-structured interviews.

Shared value?
Jobs, social context, and resource projects

Interview questions
Questions
Experience
1. What is your experience with large-scale resource projects?
2. Have you had large-scale project experience during the project design and approvals phases? *If Yes Q3. If No Q4.*
3. What were some of the complexities and potentially competing imperatives that you experienced/observed related to this project phase?
Academic and career background
4. What are your formal qualifications?
Role examples
5. Provide a quick snapshot of your career background and role examples.
General jobs observations
6. Before we get into the detail what are your general observations regarding large-scale projects and the extent social issues and opportunities are considered/embedded in jobs decision-making?
Social issues, opportunities, policies, and procedures integration
7. What internal policies and procedures governed the project design and approvals phases and how was social included?
8. How were social risks, issue mitigation and optimising of opportunities considered during the project approvals phase?
Project drivers and influences (external and internal)
9. What role do/did external factors play in influencing employment and jobs decision-making?
10. What role does/did internal operational imperatives play?
11. What types of project KPIs did you or project roles have?
Jobs decision-making
12. How were employment and jobs decisions made for large-scale resources projects during the design and approvals phases?
13. Who had ultimate accountability for making employment and jobs decisions for new projects?
14. What roles play a part in jobs decisin-making?
EXEC/PD only 15. Where there executive directives for jobs decision-making that intersected with obtaining project approvals?
EXEC/PD only 16. Did similar approaches exist across the MNC to jobs decision-making?

Interview questions
17. How were social issues and opportunities considered in making jobs decisions?
18. What were the weightings and trade-offs applied in making jobs decisions?
SC only 19. What input did you provide into jobs decision-making?
GS only 20. Were you required to make local/regional jobs commitments to the company during the design and approvals phase? *If Yes Q21. If No Q22.*
GS only 21. How were these jobs commitments navigated in practice and what are the key learnings?
Local and community expectations
22. What were the local and community expectations regarding access to local and regional jobs?
23. What role did local community expectations play in influencing jobs decision-making?
24. How did jobs decision-making intersect with company reputation and risk considerations?
25. Were local content and participation, jobs and resource nationalism an issue?
26. Did the company have a preference/policy/use benefits agreements, voluntary protocols or beneficiation agreements?
Regional development
27. Were regional issues and opportunities considered? (e.g. for jobs)
SIA and social analysis
28. What social analysis (including SIA) was undertaken to inform jobs decision-making and when - project design and approvals experience?
29. Outline the types of social issues experienced that affected/influenced jobs decision-making?
Shared value recommendations
30. What does corporate social responsibility mean to you for jobs decision-making?
31. Were CSR, CSI, SLO and Shared Value considered in jobs decision-making? (even if those terms were not used)
Internal culture
32. From your experience and/or in your view is there genuine company intent to embed stronger consideration of social in jobs decision-making?
33. What is your experience (or observations) with internal company politics with projects decision-making?
All excluding CSR 34. What is your involvement with CSR and/or the CSR team relating to large-scale projects and jobs decision-making?
Other
Relevant to Technology only 35. How is increased use of technology and automation impacting now and proposed to impact in the future on the demand for jobs?
36. Based on your role and experience what are your recommendations relating to the consideration of social issues and opportunities in jobs decision-making?
37. Any final observations or comments relating to jobs commitments and decision-making?
38. Is there anyone else you would suggest I contact to interview who could add insights?

Who	Understanding sought regarding jobs decision-making
Financiers/ Development Institutions (2)	The importance placed on social issues, opportunities, and local/regional jobs compared to other ESG areas. *Coding: F1-2*

Financier:

1. Tell me about your role and career background.
2. What is driving the focus on ESG performance for investors? (is it real consideration or a marketing pitch by investor companies).
3. What role does company social performance (and ESG more broadly) play in investment decision-making for different classes of investors? e.g. superannuation funds versus managed funds.
4. What are the main ESG indicators/reports that you track for companies?
5. What are the resource sector investment trends regarding sustainability (i.e. social performance)?
6. Are you prepared to trade off financial returns for better ESG performance?
7. Regarding jobs and localisation - are there trade-offs in your assessment of investment prospects from a social perspective e.g. cost/productivity/local jobs/sustainability performance? [long-term versus short-term].
8. What are your overall views on the social performance of the resource sector?
9. What do you consider are the main social performance risks for the sector and how well are companies addressing them?
10. What is your view of industry leadership at the executive level in being strategic in addressing ESG performance (versus tactics and executive focus on other areas such as safety)?
11. What will the continued growth in superannuation funds (and also responsible investment) mean for the resource sector?
12. What role does EIS/SIAs play in investment decision-making? What is your perception of their quality and usefulness?

Development Institution:

1. Academic background.
2. Career experience.
3. Intersection of the DFIs with companies for large-scale projects to maximise opportunities for communities – (how does the DFI/government and firms intersect?)
4. Views on the jobs generating potential of the sector.
5. Does the DFI work directly with the resource sector and individual companies on development matters?
6. Policy position on beneficiation, resource nationalism, local content and participation?

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Participant information sheet

Shared value? – jobs, social context and resource projects

This information sheet is for those invited to participate in project interviews.

Invitation

I invite you to take part in an interview regarding large-scale resource project jobs decision-making during the project design and approvals phases. All interviews will be confidential. I may use public domain policies and information provided by you, but I will not attribute it to your interview. Your resource sector experience will provide insights into how companies consider external factors, operating imperatives and social issues and opportunities in jobs decision-making.

This study will meet partial fulfilment of the requirements for a PhD for Fiona Martin, under the supervision of Professor David Brereton, Deputy Director Research Integration, Sustainable Minerals Institute and Dr David Wadley, Program Director – Geography, School of Geography Planning and Environmental Management.

What is the purpose of this study?

Specific research objectives are [*original research objectives at that point in the research]*

- Identify social issues, opportunities and intended and unintended community consequences relating to company jobs decision-making from a local and regional context.
- Identify the extent to which social issues and opportunities relating to project employment and jobs decision-making are considered and reflected in company documents.
- Understand why and how jobs decisions are made and the trade-offs and connections between external constraints, executive directives, operating environment, productivity, local context and social licence to operate considerations.
- Identify formal and informal jobs decision-making processes within mining companies and whether they constrain or enable the consideration of social issues and opportunities.

- Draw out the implications for organisational jobs decision-making and project configuration to improve the potential to create regional job opportunities from large-scale resource projects.

The project comprises three core components –

Phase One: **Jobs social issues and opportunities:** Desktop research – jobs decision-making lessons from existing research.

Phase Two: **Project public commitments – developed and developing economy contexts:** Review of a social impact assessments – to identify the types of jobs commitments made and the consideration of social issues and opportunities.

Phase Three: **Jobs decision-making in practice:** Semi-structured interviews – insights from roles involved in decision-making from an organisational and consulting perspective. **(Your involvement).**

Phase Four: **Sense-making:** Analysis – learnings and implications related to strategic corporate social responsibility and Institutional Theory

Why have I been invited to participate?

I seek your insights on the consideration of social issues and opportunities in jobs decision-making, given your experience with large-scale resources projects. Your involvement is voluntary, and there are no consequences should you choose not to participate.

What will I be asked to do and receive from you for my involvement?

A semi-structured informal interview, using guiding questions, will enable you to outline your experience and insights. Interviews are in person or via teleconference, depending on your location and will take between 45 – 60 minutes. The interview time and duration are set with you during the scheduling process. Please note the following regarding the interview -

- I will take detailed notes but not record our interview.
- Information is de-identified (collated confidentially) so that your name, title, company information, project names and specific locations are not disclosed. I may seek quotes from you during the interview to capture broad insights about processes and practice. Quotes will be de-identified and attributed to roles in accordance with the coding e.g. PM1.
- If you refer to or provide public domain policies and organisational information to use in my research, I will not attribute this information to our interview.
- I may seek points of clarification from you via telephone or email following our interview but will keep it to a minimum (e.g. 10-minute phone call).

There are no direct benefits or financial reimbursement to you from participation in this study. You will receive a summary of my analysis upon completion of my PhD research phase (estimated mid-2016) that may provide useful information for you.

Are there any possible risks from participation in this study?

There are no foreseeable risks to you, given that the confidentiality of your responses will be protected.

What if I change my mind during or after the study?

You are free to withdraw at any time, and can do so without providing an explanation. If you do decide to withdraw, your permission will be sought to use de-identified observations already provided in the project research.

What will happen to the information when this study is over?

The research data is kept for five years from the date of first publication (e.g. the PhD thesis or journal publication, whichever occurs first) on a secure University of Queensland server. Field notes and the signed Participant Information Form are stored in a lockable filing cabinet at the University of Queensland.

How will the results of the study be published?

I may use, or authorise the use of, the de-identified research findings in publications (such as journal articles), conference presentations and future research projects.

What if I have questions about this study?

Please contact me if you require additional information -
Fiona Martin
Mobile: +61 (0) 408 400 687
Email: f.martin2@uq.edu.au

University of Queensland Ethical Clearance
This study adheres to the Guidelines of the ethical review process of The University of Queensland and the *National Statement on Ethical Conduct in Human Research*. Whilst you are free to discuss your participation in this study with project staff (contactable on the details outlined above), if you would like to speak to the Chair of the Sustainable Mineral Institute, Human Research Ethics Committee, who is not involved in the study, you may contact Ms Vikki Uhlmann on +61 (0) 7 3346 4003 or email: v.uhlmann@uq.edu.au.

This information sheet is for you to keep. Your consent to participate in the study will be obtained through you signing the attached written consent form and returning it to me, Fiona Martin on email f.martin2@uq.edu.au before the interview being conducted.

Participant consent form

Shared value? – jobs, social context and resource projects

This participant consent form is for those invited to participate in semi-structured project interviews. Please read the participation information sheet and the following clauses. If you agree to participate in the research project, please sign this consent form.

1. I agree to take part in the research study named above.
2. I have read and understood the Participant Information Sheet for this study.
3. The nature of the study was explained to me.
4. I understand that the study involves participation in a semi-structured informal interview, where a series of guiding questions will enable me to provide insights based on my large-scale resource project experience.
5. I understand that all research data will be securely stored at the University of Queensland's premises.
6. Any questions that I have asked were answered to my satisfaction.
7. I understand that the researcher will maintain confidentiality and that any information I supply to the researcher will be used for this research and subsequent research projects.
8. I understand that public domain material that I provide to the researcher may be used in the research but will not be attributed to me.
9. I understand that the results of the study will be published so that I cannot be identified as a participant.
10. I understand that I will be able to withdraw at any time without providing an explanation.
11. If I do withdraw, I understand that my permission will be sought to use de-identified observations already provided in the project research.

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Participant consent form

Shared value? – jobs, social context and resource projects

Participant's name: _____

Participant's signature: _____

Date: _____

Statement by Investigator

☐ I have explained the project and the implications of participation in it to this volunteer through initial contact and the provision of the Participant Information Sheet. I provided the volunteer with the opportunity to contact me to obtain additional information before consenting to participate. I believe that the consent is informed and that he/she understands the implications of participation.

Investigator's name: _____

Investigator's signature: _____

Date: _____

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